Integrating problem-based business improvement methods with strengths-based constructionist methods

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INTEGRATING PROBLEM-BASED BUSINESS IMPROVEMENT METHODS WITH STRENGTHS-BASED CONSTRUCTIONIST METHODS

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ABSTRACT

This qualitative study explores a generative approach to organizational improvement methodologies through the integration of problem-based and strengths-based methods. To date very little exists in the literature concerning the integration of these methods or the potential benefits derived through their integration. This exploration of integrated improvement methods enables new perspectives and approaches to the development and application of improvement methods (Schultz & Hatch, 1996).

This study extends current theory and develops new insights on improvement methods by exploring the meaning and conceptual frameworks of problem-based and strengths-based methods and developing a model and mechanism for their integration and use. In addition, this study utilizes an appreciative lens to explore the potential for the application of an emergent framework for integrating Total Quality Management's derivative Six Sigma and Appreciative Inquiry (Marash, Berman, & Flynn, 2004).

Descriptive statistics and thematic analysis methodology were utilized to analyze the data from a survey sent to 88 subject matter experts, and in-depth post-survey interviews with four subject matter experts. The findings from this study and published case study exemplars from the literature found that problem-based methods and strengths-based methods had strengths and weaknesses. It was further determined that the weaknesses of each could potentially be offset through leveraging the strengths of each as the two approaches were integrated.

The findings in this study strongly support and extend the work done by Kenneth Gergen with Social Construction, David Cooperrider with Appreciative Inquiry, and W. Edwards Deming with Total Quality Management.

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I owe deep and heartfelt gratitude and appreciation to my wife Marcia and our children Alexandra and Isabelle. Marcia has good-naturedly been supportive of me in completing three postgraduate degrees; this will be my last university degree program (and I really mean it this time). Our youngest daughter, Isabelle is looking forward to family vacations that really are vacations. And our daughter and technocrat, Alexandra, is looking forward to my not calling her as often for assistance with Microsoft Word and other programs – although her assistance and insights were invaluable!

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Preface

Who I Am, What I Believe, and What I Am Going To Do About It

I have been an operations manager for over twenty years, charged with continuous organizational improvement and transformation, and it has become increasingly evident to me that the continual focusing on the negative wears heavily on an organization's associates and stakeholders. I am a certified Lean Six Sigma, Master Black Belt, and have led a major pharmaceutical and medical device corporation's deployment of Lean Six Sigma. From years in practice, I came to the conclusion regarding the negativity inherent in taking a predominately problem-based approach to organizational improvement.

In aerospace, medical device, and pharmaceutical corporations, I have held leadership positions in manufacturing, quality assurance, engineering, and operational excellence in plant, division, and corporate roles. My roles have included working at senior manager, director, and corporate vice president levels. Specifically in terms of problem-based and continuous improvement responsibility, I have had corporate development and deployment responsibility for Lean, Six Sigma and other related TQM programs. Under my direction and leadership, I have trained over 1,000 associates at all levels and saved in excess of $100,000,000 while making the organization's business processes more robust and less susceptible to common and special cause variance.

While I have been relatively successful in these practice areas, it has not been without an increasing awareness that the intense ongoing focus and organizational alignment toward identification and amelioration of problems eventually creates a pervasive and an almost paralytic concern that the organization does nothing right. The initial burst of enthusiasm that problems are finally being successfully and systematically addressed down to true root cause

level with sustained and effective resolutions to problems begins over time to wane. This leads to an almost resentful concern that good things are being missed and the inevitable successes from other than problem-based are ignored, de-prioritized, and considered less significant. With my growing recognition of limitations inherent in a problem centric focus only; I tried unsuccessfully to use the problem centric focus methodologies and tactics to address these limitations. In doing so, I determined that it is exceedingly difficult to use an analytical problem-based methodology and process improvement tools to address limitations inherent in the use of that same analytical problem-based methodology and process improvement tools. I further found that the requisite tools were not available in my problem-based centric toolbox.

As a result, I began a concerted effort to identity and study strengths-based constructionist methodologies aimed at engaging an organization in identifying and building upon those things that it does well and has done well in the past. In researching various strengths-based approaches to organizational improvement, it became evident that Appreciative Inquiry (AI) is an approach that goes beyond theory, it has process steps and current and past successes in helping organizations find their sources of energy and excellence and then in making excellence the organizational norm (Cooperrider, Sorensen, Whitney, & Yaeger, 2000).

I am approaching this research as a practitioner and theorist. I previously completed a doctoral degree in business administration (DBA) with an emphasis in operations research, specifically researching the critical success factors of U.S. and U.K. based total quality management systems. I also have undergraduate and master's degrees in various organizational management disciplines, which have helped me form a level of baseline understanding regarding the theory behind the structure, development, and operation of businesses. It is my intent to use

the learning from this current research to develop and implement a new, contributory and robust paradigm for business improvement.

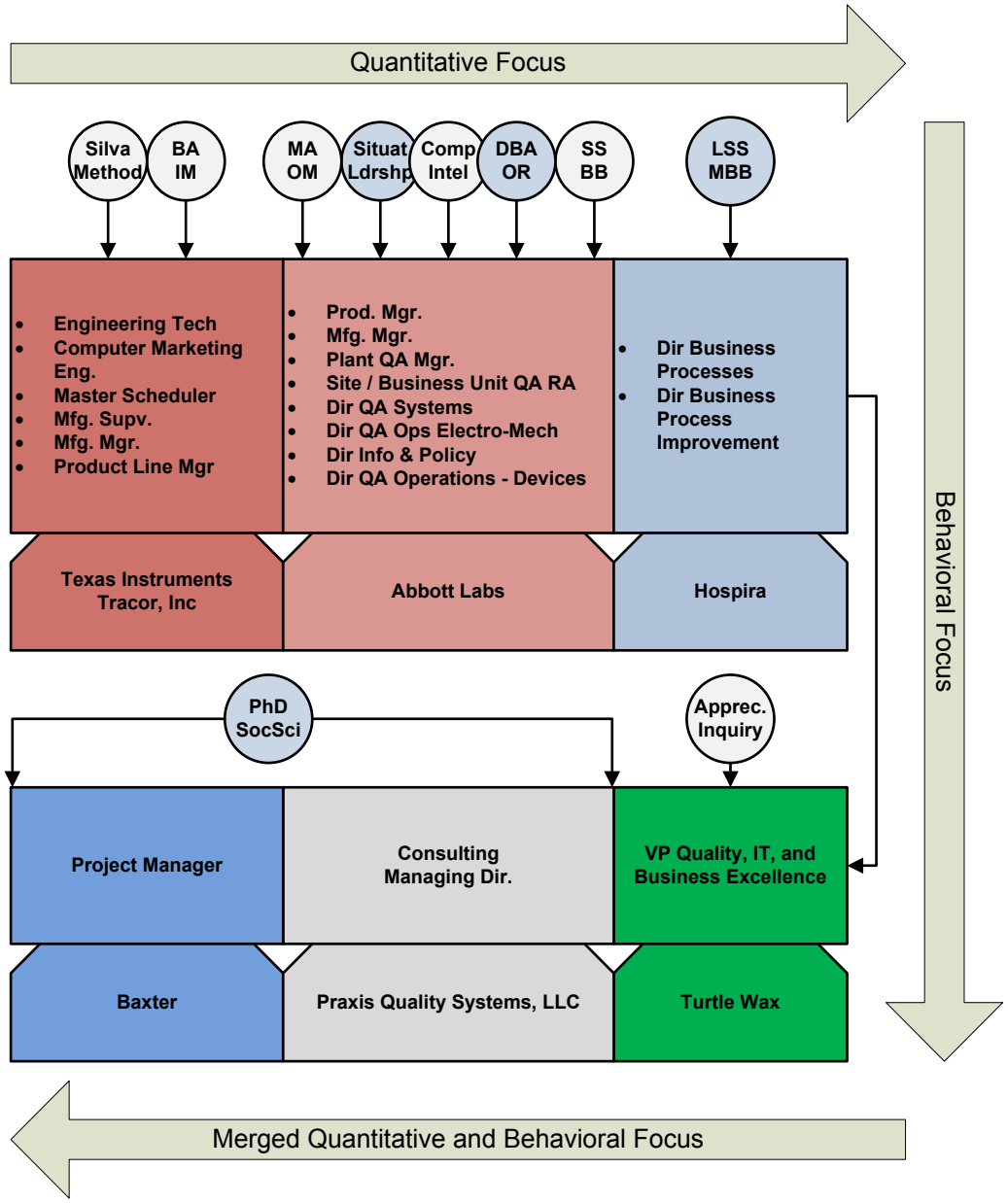

Figure P.1. *Personal Evolution*

The above depiction (Figure P1) shows my evolution from a quantitative focus to one of a behavioral focus and eventually to a blended approach. I began my career working my way through college in the aerospace field, primarily in engineering and operations and then went

into the pharmaceutical and medical device field in operations, quality assurance, regulatory affairs, and business excellence. All of these activities were very much problem-based in focus and linear in reporting relationships. I had over 1,000 employees reporting to me, and it was essential to be clear in communications and concise in setting goals and objectives – primarily operational goals and objectives. Even my strategic actions had a tactical bend to them. It was not until I got into a heavily matrixed organizational responsibility with a great deal of and a global span of responsibility but with relatively few people reporting directly to me that I saw the need to start winning the hearts and minds of my colleagues. This was needed in order for them to embrace and engage with new initiatives that, while important, appeared to them to be in addition to their regular jobs. This movement into a matrixed responsibility coincided with my global assignment of starting and leading a corporate-wide Lean Six Sigma problem-based improvement initiative.

The research conducted during the course of writing this dissertation not only provided me with a better understanding of various improvement methods and insights into the potential for beneficially integrating elements of different approaches, it has afforded me a new operating mindset. I have in the past developed and implemented large-scale change initiatives using a clean-sweep approach in which existing methods, practices, procedures, and approaches were replaced in their entirety with the new versions. This research has provided the perspective that regardless of the situationally driven use of problem-based, strengths-based, or blended improvement methodologies, a good approach at the onset of a change initiative could be to first take the time to find what is done well, openly recognizing existing excellence and then anchoring to and building upon it.

Chapter One - Introduction

Introduction

Kenneth Gergen (2009) describes social construction as being both very elemental in the consideration that nothing has meaning unless people ascribe meaning to it, yet also very complex in its potential for convoluted layering of meaning. This research uses an elemental approach to social construction for researching and developing a process for organizational transformation that can possibly integrate problem-based business improvement methods with strengths-based constructionist methods. Through this research and analysis, there is an attempt to create a meaningful process for organizational improvement.

This study will contribute to the field of business management by developing a more complete understanding of the means and methodology for organizational improvement by: 1) identifying and resolving significant organizational problems 2) identifying and building upon past organizational successes, and 3) identifying and deploying a new co-created shared vision and reality for the future organization. Perhaps, problem-based business improvement methods and strengths-based constructionist methods could potentially be used in conjunction with, and in support of, each other, providing a solution more complete than either could separately.

Typically using problem-based business improvement methods and strengths-based constructionist methods are seen as an either or proposition, therefore accepting as a predicate assumption a field-limiting separatist paradigm (Cooperrider, Sorensen, Whitney, & Yaeger, 2000).

> We could have easily called this section "Eulogy for Problem-Based". In our view the problem-based paradigm, while once perhaps quite effective, is simply out of synch with the realities of today's virtual worlds. Problem-based approaches to change are painfully slow, they rarely result in a new vision because we already, perhaps implicitly, assume an ideal so we are not searching for new knowledge of better ideals but searching how to close the gaps; and in human terms problem approaches are notorious for generating defensiveness. (p. 18)

Background to the Study

Quality assurance in the U.S. began as an end-of-the-line quality control inspection function. Boardman (1994) pointed out that after World War I the field of quality assurance began a resurgence and change of philosophy under the leadership of W. Edwards Deming. Deming took the field of quality assurance to new levels moving from utilizing statistical process control to developing and introducing a philosophy of total quality management (TQM) in which an entire organization was oriented in the direction of identifying and meeting its customers' needs. Boardman points out that Deming was already 80 years old when the 1980 NBC documentary "If Japan can, why can't we" appeared on television. Although the Japanese had named their prestigious quality award after Deming in 1951, and Deming had consulted on many domestic quality issues, he was not well known in the U.S. until the airing of the NBC documentary.

Deming was recognized in quality circles for his work in promoting and explaining the benefits of statistical process control, but Deming's true impact was found in his message to management. Top managers in many companies were surprised to learn that Deming would not even consider working with the company if the management team was not committed and willing to take the quality leadership role. Deming had a simple message to management. That message was that if you improve quality in your products and processes, you reduce scrap, reduce returns, increase customer satisfaction, and this in turn reduces operating costs while increasing sales and profits. This simple concept came to be known as the Deming Chain Reaction (Deming, 1986). Deming taught that people are not the problem, people work in the system, and that managers should work on the system. It was Deming's perception that 94% of the problems were attributable to the system while 6% of the problems were attributable to the

individual people in the system. This system perspective helped management look at the problems of business in a different light. Instead of blaming people for the things that they had little control over, such as materials, equipment, methods, and environment, the managers should work on improving the systems and processes.

Ettore (1994) describes Joseph M. Juran as, along with W. Edwards Deming and Peter Drucker, one of the preeminent advisors to management in U.S. corporations in this century. Juran, for almost 50 of his 90 years, was a leading proponent of quality. Juran points out that the U.S., prior to the Japanese economic revolution, had enormous purchasing power and a pent-up demand for products and services. It was a seller's market and U.S. companies and management saw no problem or reason to change their practices. Volume was the preeminent drive for U.S. corporations. Quality had been delegated to the quality manager and the quality manager's tool usually consisted of end-of-line inspection procedures and accept/reject criteria. Juran devised a process of determining what the quality cost-drivers were for an organization, and he taught that in measuring and controlling the quality costs, such as appraisal and prevention costs, a corporation could understand and control quality loss costs such as rework and scrap costs. Juran, as Deming did, taught that it was the responsibility of management to establish effective quality assurance processes and that the processes would then allow the people to produce a high quality product (Juran, 1994).

TQM was the evolution of the teachings of quality advocates such as Deming and Juran. TQM brought the various individual quality systems together into a cohesive business management fabric. Saraph et al. (1988) describes Juran's contribution to TQM as providing three basic processes: quality control (gaining conformance), quality improvement (by specific projects), and managerial and technical breakthroughs (quantum leaps in quality performance).

Juran's (1994) approach emphasized quality planning, the establishment of a formal quality policy, and designing in quality while Deming (1986) emphasized total management commitment, removing the barriers that prevented employee input and contribution, and quality over cost as a consideration for materials procurement. Woven together, Deming's and Juran's teachings provide a strong foundation for modern TQM. With the current TQM and many otherwise unrelated management and training concepts collected and presented as being "TQM", it is the effective identification and implementation of the actual TQM program elements that can provide management with tremendous leverage in the business environment (Locke, 1993).

Over the past decade Total Quality Management (TQM) has become a widely-discussed concept as a problem-based method (Marash, Berman, & Flynn 2004). Miller (1996) describes TQM as:

> TQM is an ongoing process whereby top management uses whatever means necessary to empower and enable every person in an organization to set and achieve the standards to meet and exceed the expectations of internal and external customers. (p. 152)

This definition, as an overview statement, is clear and concise, but the path for understanding the TQM components and their application rapidly becomes less clear. TQM is a concept that integrates and unifies the functions of quality assurance with the other business functions of a company, such as marketing, sales, product development, accounting, etc.

Many articles have been written about the elements of TQM and the approaches taken to assure a successful implementation of TQM, but few academic studies have attempted to identify the elements that are critical success factors for the development and implementation of a TQM program (Shin & Kalinowski, 1998).

Saraph, Benson, and Schroeder (1988) surveyed 162 quality managers and general managers representing 89 divisions of 20 manufacturing and service firms in the Minneapolis/St.

Paul area in order to determine the critical factors of TQM. The Saraph et al. study, through factor analysis, determined that the TQM critical factors were: 1) top management leadership, 2) role of the quality department, 3) training, 4) product design, 5) supplier quality management, 6) process management, 7) quality data reporting, and 8) employee relations. Each of the factors had multiple qualifying variables associated with their description, content, and scope. The survey questions were based on information acquired through a literature review.

Black and Porter (1996) also conducted a study to determine the TQM critical success factors using, as a sample, members of the European Foundation for Quality Management. The survey questions were developed from the Malcolm Baldrige Award criteria and from a thorough literature review. A factor analysis of the 204 returned surveys determined that the TQM critical success factors were 1) corporate quality culture, 2) strategic quality management, 3) quality improvement measurement systems, 4) people and customer management, 5) operational quality planning, 6) external interface management, 7) supplier partnerships, 8) teamwork structures, 9) customer satisfaction orientation, and 10) communication of improvement information. Each of the factors had multiple issues associated with the general factor. Black and Porter attributed the differences in the quality factors found in their study and Saraph's et al. study to the evolution of the science of TQM over the eight-year period between the studies. Black and Porter used the European Foundation for TQM for their study because the European quality assurance community had been using TQM for some time and was not as familiar with the Baldrige Award criteria as the U.S. quality assurance community was thought to be. Black and Porter suggested repeating their research in the U.S. as a future study, in order to compare and contrast the differences in the two quality cultures.

For all of the obvious and many benefits of problem-based, there is obvious and tangible pushback from organizations and participants, asking "don't we do anything right?" It is this pushback and the resistance of participants that has driven the push to look beyond TQM and problem-based methodologies for more inclusive, engaging and effective organizational transformation methodologies (Donovan, Meyer, & Fitzgerald, 2006).

The Problem Statement

The researcher has led quality assurance and business excellence initiatives for the past 20 years. While these initiatives were successful, they were not without unmet opportunity. It is necessary to identify and resolve problems, but when doing so it is very easy to focus on problems to the exclusion of recognizing, celebrating, and building upon those things that the organization does right. If the organizational initiatives and stated values emphasize problem-based almost exclusively, an organization eventually pushes back, asking, "Don't we do anything right?"

Conversely, when the researcher introduced various strengths-based methodologies, a concern builds that the organization has real problems and focusing on the positive tends to ignore potential organizational ills. Cooperrider et al. (2000) point out this is a common theme heard when introducing strengths-based improvement initiatives and responds that strengths-based methods do not ignore problems they just approach them from a different perspective.

Statement of Purpose

This research will study the integration of problem-based business improvement methods with strengths-based constructionist methods for a more holistic approach to business improvement and organizational transformation.

This research will contribute to the field of business management by concurrently:

1) identifying and resolving significant organizational problems

2) identifying and building upon past organizational successes

3) identifying and deploying a new co-created shared vision and reality for the future organization

In this study, the researcher explores and evaluates if it is possible to effectively integrate problem-based business improvement methods with strengths-based constructionist methods. And, if so, is there a holistically derived benefit beyond that which could be contributed through using only one or the other of the approaches solely. Both problem-based business improvement methods and strengths-based constructionist methods could potentially be used in conjunction with, and in support of, each other, providing a solution more complete than either could separately. Typically using problem-based business improvement methods and strengths-based constructionist methods are seen as an either or proposition; therefore, it is seen as accepting as a predicate assumption a field-limiting separatist paradigm.

Research Question

The following research question and its sub-questions are explored through in-depth interviews of subject matter experts (SMEs) and the subsequent implementation of other qualitative methodologies and approaches as data are analyzed.

The research question is how is it possible to design and deploy an organizational transformation methodology that integrates problem-based business improvement methods such as Total Quality Management (TQM) and strengths-based constructionist methods such as Appreciative Inquiry (AI)?

The sub-questions are:

- How can this integrated method provide levels of benefit perceived as greater than either

could separately contribute?

- How can this integrated method be recognized by practitioners from either primary orientation as being of increased contribution through their combination?
- How can this integrated method be used and embraced by employees?
- How can this integrated method be clearly communicated to employees across various organizational levels and disciplines?
- How can this integrated method be packaged providing common scaleable baseline applicability across multiple industry or business segments?

The answers to these questions form the basis for determining the feasibility of successfully and beneficially integrating problem-based business improvement methods and strengths-based constructionist methods. It may also help in determining the appropriate action path and mechanisms for the integration of these two methods.

Significance of Research

At this time the significance and contributions of both problem-solving and strengths-based methodologies are recognized, but they are primarily looked at separately and thought of as being mutually exclusive and not able to effectively be combined. This study has identified the best practices and positive results generating aspects of both problem-based and strengths-based improvement methods, and for identifying the weaknesses of each that could potentially be resolved via incorporating strengths of the other.

Overview of Methods

Eighty-eight subject matter experts (SMEs) in the fields of problem-based and strengths-based improvement methods were identified. The SMEs were surveyed with a number subjected to further in-depth interviews regarding problem-based and strengths-based improvement

methods (Pace & Sheehan 2004). Results from the data were analyzed using thematic analysis for sense-making and results and conclusions. Thematic analysis is a commonly used method of qualitative analysis. In thematic analysis, the task of the researcher is to identify a limited number of themes which adequately reflect their textual data. The researcher needs to become very familiar with the data and codes the data in small groupings. It is an iterative process in which the researcher codes and recodes the data based on a growing understanding of themes as they become increasingly more apparent. The tighter iterative codings allow the researcher to integrate data into primary themes, each clear in its definition and then to develop and apply illustrative examples of the themes (Boyatzis, 1998).

Limitations

A primary limitation of the study is its intent to evaluate the merging of very dissimilar approaches to improvement. This dissimilarity permeates many elements of the research, such as terminology, approach, value systems and core beliefs, and the vested interests of practitioners and scholars in the fields. These dissimilarities yield an inherent disbelief on the part of many that enough commonality exists to even begin assessment, let alone an evaluation of feasibility and benefits of merger. This foundational dissimilarity presents a rift that must be addressed by the researcher gaining common ground and purpose between the various SMEs (Cooperrider et al., 2000).

The nature of qualitative research adds to the complexity of the aforementioned conceptual chasm in that it requires SMEs be interviewed and surveyed using tools proofed for standardization and the results analyzed using methods such as thematic analysis for sense-making. Qualitative research by its very nature is more open-ended with more potential for interpretive analysis error than is quantitative research (Boyatzis, 1998).

Creswell (1994) also describes the differences between quantitative and qualitative research relative to sample size. Quantitative research tests and evaluates against predetermine hypotheses and typically requires the use of large statistically robust sample size. Qualitative research typically uses interviews of SMEs and uses smaller sample sizes for data collection and analysis. Sample sizes for qualitative research are typically smaller than those for quantitative research primarily because there comes a saturation point where additional data is not providing additional information. Samples in qualitative research usually require 50 or fewer participants (Mason, 2010). Regardless of the analytical methods employed, a small sample size is perceived by many to provide analytical challenges.

Definitions of Key Terms

The key terms in this study include those used for problem-solving and strengths-based methods for organizational improvement.

Appreciative Inquiry (AI). AI assumes that embedded in every organization is the knowledge to make it successful, and that via the AI process, this resident and untapped knowledge can be brought to the surface, exposed, shared, and used as an integrated reservoir for fueling sustainable positive organizational change (Mohr & Watkins, 2002).

Problem-based approach. The problem-based process generally follows the accepted scientific method of problem-based, i.e., state the problem, form hypothesis, test hypothesis, collect data, analyze data, draw conclusions (Marash et al., 2004). Out of the many incarnations of this problem-based approach to improving businesses and their functioning, the one that has arguably both been the most applied and misapplied has been TQM.

Six Sigma and Lean. When looking at the latest incarnation of the business oriented problem-based approach, that of moving from TQM to Lean Six Sigma, the foundations have remained the same. There has been advancement in the use of statistics, analysis, and a

standardized template aiding in problem-based process rigor; however, the essentials have remained TQM. As such, a study of TQM forms the basis for the analysis of the problem-based approach to business improvement and organizational transformation (Hilmer & Karney, 1998).

Strengths-based approach. In researching various approaches to developing and applying a strengths-based approach that emphasize identifying and stressing the positive aspects of an organization and building upon its successes, Appreciative Inquiry (AI) is often cited as a concept with a strengths-based approach (Cooperrider et al., 2000; Fitzgerald, Murrell, & Newman, 2002).

Total Quality Management. Miller (1996) provided a working definition for Total Quality Management (TQM). TQM is an ongoing process in which top management takes whatever steps are necessary to enable all the members of the organization, while performing their duties, to establish and achieve standards, which meet or exceed the needs and expectations of their customers, both internal and external. Lakhapate (1997) describes TQM as an umbrella that covers all improvement activities including statistical process control, quality circles, just-in-time, customer care, Taguchi design of experiments methods, and quality assurance.

Organization of Dissertation

The study begins with a statement of purpose and potential impact, and then moving into an investigation into published works describing the fields of problem-based and strengths-based improvement methods. From there, SMEs in each field are identified and queried regarding their respective fields and the potential for their merging, analysis and interpretation follows. The study ends with a discussion of findings, their interpretation, and conclusions drawn by and recommendations made by the researcher.

Chapter Two – Literature Review
Is a Problem-Based Approach for Improving Businesses Enough?

Introduction

The last few decades have brought about a concerted effort to optimize, improve, and otherwise make businesses more efficient through problem-solving approaches. These problem-based initiatives have taken one of three primary approaches (Marash, Berman, & Flynn, 2004):

> 1) identifying and resolving problems such as the techniques and methodologies applied in Lean and Six Sigma;
> 2) building upon past successes in a strengths-based approach such as that used in Appreciative Inquiry (AI); and
> 3) developing and sustaining of organizational structures such as the approach used in ISO 9000 and the Baldrige National Quality Award. (p. 38)

Marash et al. (2004) describe that these initiatives have taken the form of Total Quality Management (TQM), Lean, Six Sigma, and other related approaches.

While none of these approaches has provided a complete means of productively overhauling a business, each has brought positives and negatives. An example of a negative was TQM with its positive customer focus, but its lack of identifiable systematic process left many to improvise problem-based methodologies. Then, there are derivatives of TQM, Lean and Six Sigma that developed rigorous stepwise problem methods, but there were light on the customer focused organizational alignments which were at the heart of TQM (Marash et al., 2004).

TQM has the positives of aligning a business' resources to the needs of the customer and postulating that assuring the quality of service or product was the entire business' responsibility versus only that of a specified Quality Department. While seemingly a good idea, TQM lacked the process mechanism and rigor to assure effective and ongoing organizational alignment to customer needs and requirements (Marash et al., 2004).

TQM, its derivatives (Six Sigma and Lean) and other process improvement initiatives, provided more analytical capacity to identify problems and to drive to true root cause than other initiatives, but they keep a focus on the negative aspects of the business (Marash et al., 2004). While there is a need for organizations to identify and correct problems, problem centric activities by their very nature keep attention and focus on the negative aspects of an organization's operation (Cooperrider, Sorensen, Whitney, & Yaeger, 2000).

Conversely, organizations are reticent to engage in activities that have a sole focus of identifying, celebrating, and building upon the positive (Acosta & Douthwaite, 2005). While it is self-affirming and provides an optimistic outlook from the start to focus on the positive, there is always the underlying organizational awareness that real and frequently pervasive systemic problems do exist in the organization and unless they are surfaced and dealt with effectively and directly, they will fester and begin to adversely affect the entire organization (Cooperrider et al., 2000).

There are limitations to various methodologies for organizational improvement and transformation and often times the "best approach" is a melding of the better aspects of what is routinely seen as approaches thought of as being separate and mutually exclusive (Marash et al., 2004). In researching various approaches to developing and applying a strengths-based approach that emphasize identifying and stressing the positive aspects of an organization and building upon its successes, Appreciative Inquiry (AI) is often cited as a concept with an approach (Cooperrider et al., 2000; Fitzgerald, Murrell, & Newman, 2002).

It is evident that the AI focus is, as designed, applied to the strengths of an organization and practices a 4-D methodology that helps the organization identify and build upon the sources of its past successes. While AI will provide answer to the question of how to focus on the

strengths through its principles and 4-D approach, it moves away from negative focus, such as that involved in problem-based methodologies (Fitzgerald et al., 2002).

This movement may unintentionally leave the practitioner with the conundrum of possibly doing one or the other, stressing strengths-based approaches or problem-based approaches. This study research is to understand the possibility of commingling the two approaches in an effort to identify and solve an organization's problems and/or possibilities while at the same time assisting the organization in identifying its past successes and celebrating and building upon these successes. Done in this manner significant progress could be made in all phases of positive organizational transformation.

TQM is the embodiment of problem-based in business applications (Marash et al., 2004). The following review of problem-based improvement methodologies begins with an overview of TQM, describes the perceived advantages offered by the implementation of TQM, identifies via published studies the critical success factors of TQM, and then describes in detail current operational variants of TQM and their respective utility.

An Overview of TQM

For historical orientation, quality assurance systems in the United States (U.S.) began as quality control systems. Quality control systems are primarily developed and implemented to optimize a company's internal manufacturing operation, solving fundamental operational problems in doing so. Quality control implemented statistical process control in the 1960s as an advance from ineffective 100% end of line inspections. But the emphasis was still in reducing scrap and rejects from the manufacturing process. It was not until the recognition and implementation of the works of statistical and quality assurance experts such as W.E. Deming and J.M. Juran that the emphasis of quality assurance has turned to integrating the needs and

expectations of the external customer (Marash et al., 2004).

Miller (1996) also provided a working definition for TQM. Miller defined TQM as an ongoing process in which top management takes whatever steps are necessary to enable all the members of the organization while performing their duties to establish and achieve standards that meet or exceed the needs and expectations of their customers, both internal and external. Miller is careful to state that this definition of TQM is from a theoretical perspective and does not take into account the manners in which TQM is frequently practiced within corporations.

In addition to describing the 14 points of quality management, W.E. Deming described the Seven Deadly Sins of quality management programs which adversely impacted a business' capacity to adopt a focus on customer needs, identify and resolve operational and product / service problems, and adopt methodologies for continuous process improvement. These Seven Deadly Sins can damage otherwise sound quality programs and the corporations that they support. These sins are defined in the following terms: 1) lack of constancy of purpose, 2) emphasis on short-term profits, 3) evaluation of performance, merit rating, or annual review of performance, 4) mobility of management, 5) running a company on visible figures alone, 6) excessive medical care costs, and 7) excessive costs of warranty fueled by lawyers.

Although W.E. Deming's 14 Points of quality management were aimed at optimizing an organization's effectiveness to produce the highest quality product at the best price and meet or exceed customer expectations, they fell short in one very significant area. They offered an effective and proactive approach to creating a quality oriented and highly interactive organization, but they remained silent relative to designing and developing products utilizing customer input. The Deming 14 Points provided an organization the capacity to effectively "put its own house in order". But these points did not require the organization to reach out to

customers throughout the product life-cycle or potential customers in advance of the product offering, asking the customers which features, reliability levels, product quality levels, and utility factors, they needed and were most desirous of in terms of products and services.

The early concepts and teachings of Deming and Juran led to the development of TQM (Hodgetts, Luthans, & Lee, 1994). The focus of TQM is based on the guiding principle that the entire organization must be linked into the same integrated quality structure. TQM stresses organizations need to work together to produce the highest quality product and service for the customer. These ideas are closely linked to Quality Function Deployment (QFD), in that the entire organization is oriented to producing for the customer rather than solely, for the organization itself. TQM differs from QFD in that QFD has primarily a logistically oriented approach, and TQM is a philosophical quality orientation of processes and management structure (Hodgetts et al., 1994). TQM and QFD can exist harmoniously in an organization.

An additional perspective regarding the need to establish an effective theoretical definition of TQM prior to analyzing the effectiveness of specific corporate TQM applications is provided by De Cock (1998) in his paper on postmodernism. The difficulties in implementing successful TQM programs are not believed by De Cock to be because organizations and their managers do not understand TQM. De Cock believes the difficulties arise because organizations try to take opportunistic approaches to picking and choosing the TQM elements that are implemented versus committing to implementing comprehensive TQM programs and making them succeed. De Cock also describes the tendency for managers to talk about TQM in elitist academic terminology, which loses the attention and comprehension of the majority of the organization's employees.

TQM is touted, then, as the route to operational excellence by managers until it impacts

the manager's individual goals or the perception of the manager that other managers have. In these instances, De Cock describes a gradual evolution away from the TQM philosophy on the part of the manager. It is thought that and the organization's employees would detect movement away from the TQM program. If this happens, TQM in the organization is perceived as a management fad and is doomed to failure.

A paper written by Lawrence and Phillips (1998) is critical of De Cock's ideas in that they feel that De Cock did not fully explain or explore two essential theoretical TQM questions in his paper. These questions were what can postmodernism tell us of the dynamics of TQM and what role do power and politics play in TQM. These authors define postmodernism as a family of related approaches around TQM; therefore postmodernism is not a single concept, it is the interplay between many concepts. Three related themes in postmodernism are useful in the study of TQM: the centrality of discourse, the death of the meta-narrative, and the interdependence of knowledge and power. Lawrence and Phillips state that De Cock's approach is not complete in that postmodern approaches to organizational analysis stress the irresolvability of organizational tensions and contradictions; however, a critical theory approach focuses on analysis and reform intended to restructure the social foundations of an organization. Critical theory is offered as an approach more consistent with the scope and intent of the TQM philosophy because both (critical theory and TQM) require analysis and reform in order to achieve continuous process improvement.

TQM terminology embraces customer focused problem-based approach. While the terminology used by TQM practitioners is relatively commonplace and used throughout business, within the TQM framework the terminology takes on special meaning and application (Marash, Berman, & Flynn, 2004).

Table 2.1

TQM Unique Terminology

TQM Terminology	TQM Terminology Customer Specific Implications
Critical success factors	determining from the many complex and frequently conflicting requirements and demands of managing a business those few areas that are critical to the organization.
Customer driven	a company that places a high emphasis on understanding its customer's needs and providing products and services and meet and exceed those needs
Customer satisfaction	meeting and exceeding the expectations of a customer relative to product quality, performance, and cost.
Empowerment	providing employees at all levels in the organization the resources, opportunities, and expectations, for appropriately contributing to the management of the business.
External customer	the customer external to a business that is the buyer of the goods or services offered by the business.
Internal customers	co-workers or subsequent departments that subsequently receive and utilize the work product of another worker internal to the business.
Quality assurance	refers to the processes and procedures that systematically monitor different aspects of a service, process or facility to detect, correct and ensure that quality standards are being met.
Quality control	the function within a quality assurance department that test, measures, and otherwise assures that a product is produced to established standards.
Quality function deployment (QFD)	a quality practice with requires a business to orient itself in a manner that all of the company's internal functions are aligned for listening to customer needs and meeting customer expectations.
Quality/TQM paradoxes	seemingly internally inconsistent criteria that must be reconciled and met. An example is: Reward team efforts while recognizing and rewarding individual contribution.
Total quality cost	the process of determining the total quality associated cost incurred by a business, i.e., appraisal, prevention, loss, scrap, and any quality related lost business.
Total Quality Management (TQM)	an ongoing process in which top management takes whatever steps are necessary to assure that employees at all levels have the resources and expectations to do their jobs at quality levels sufficient to meet and exceed customer satisfaction expectations. (p. 25)

Note. From Marash, S.A., Berman, P.D., and Flynn, M. Fusion Management: Harnessing the Power of Six Sigma, Lean, ISO 9001:2000, Malcolm Baldrige, TQM and Other Quality Breakthroughs of the past Century. Fairfax, Va.: QSU Pub. 2004. Print, p.29.

As described in Table 2.1, the quality terminology and quality functions take on a unique customer orientation when specifically applied to TQM operations. Marash, Berman, and Flynn (2004) describe examples of this in the alignment of internal quality functions to meet the needs and objectives of external customers via developing and implementing different types of

listening systems to identify, analyze and disseminate customer and marketplace input and subsequently deploying internal resources to address the findings.

Many corporate executives will quickly tell an inquirer that they are in business to meet their customers' needs. But when asked what their goals and objectives are they respond: to expand market share, increase revenues, open new plants to meet anticipated demand, and a whole litany of goals specific to optimizing the productivity, breadth, and span of their operation. The customer can very quickly become the tool with which the company meets those objectives.

Wittmann (1997) describes corporations place a high degree of significance on achieving a customer satisfaction orientation and focus to their business, and the effective application of TQM principles allows companies to effectively identify and meet the customer's needs. These companies strive to produce the highest possible quality product and service for their customers. The quality assurance departments in these companies are charged with the singular responsibility of assuring that this high quality product or service is delivered to the end customer.

Quality assurance professionals in many companies are becoming Certified Quality Engineers through the certification program offered by the American Society of Quality, previously known as the American Society of Quality Control (American Society of Quality, 1988). The next section describes the origin and the evolution of the systems used by quality assurance professionals.

TQM applications. TQM is frequently used by an organization as a tool for organizational transformation efforts and meeting the corporation's strategic vision. McArthur (1996) explains that TQM has as a fundamental objective to improve business performance. In order for an organization to achieve long-term performance objectives, an organization must pay

attention to more than just the TQM mechanism or process. The process approach must be balanced with an understanding of intent and the business interrelationships. Once the organization's strategic TQM vision has been developed and communicated to employees, several typologies have been proposed for categorizing the strategic responses.

Lakhapate (1997) further elaborates on TQM tools and how organizations can use various levels of it to accomplish specific goals, objectives and needs on a situationally appropriate basis. Similarly, Gatewood and Riordan (1997) note that when the various TQM tools are used in an effective and integrated approach that the three principles of quality management: customer focus, continuous improvement, and teamwork, are activated and become a primary focus for the business. Gatewood and Riordan conducted a TQM study with three hypotheses:

> H1: The organizational practices of training, internal support, work in formation exchange, and policy dissemination will be positively related to employee perceptions of the quality management principles of customer focus, continuous improvement, and teamwork.
> H2: The quality management principles of customer focus, continuous improvement, and teamwork will be positively related to the employee attitude variables of organizational commitment and empowerment.
> H3: Employee attitudes of organizational commitment and empowerment will be positively related to customer satisfaction. (p. 52)

The results of the study demonstrated that as predicted in H1 work information exchange and internal support were statistically significantly and positively related to all three of the quality management principles: customer focus, continuous improvement, and teamwork. As predicted in H2, all three quality principles were significantly and positively related to the employee attitude variables of empowerment and organizational commitment. As predicted in H3, organizational commitment and empowerment were significantly and positively related to customer satisfaction. The Gatewood and Riordan study was significant because it provided for the construction of a model of relationships among three categories of constructs central to the TQM systems. The study provided empirical support that:

> 1) Organizational practices can be used to develop the three central principles of TQM within an organization.
> 2) The presence of the three TQM principles within an organization is related to employee attitudes.
> 3) Employee attitude is linked to the ultimate goal of TQM, customer satisfaction. (p. 56)

With TQM's primary directive of aligning the business functions for effectively identifying and resolving issues that prevent its meeting and exceeding customer requirements while maintaining a desired state of operational and financial control, these elements when integrated provide for forward looking and optimized problem-solving. Hoff (1995) points out that there is little that is really new about TQM. TQM has, as a foundation, many years of management and quality theory. He describes many of the fundamental TQM principles as having their roots in military practices and in the teachings of social scientist throughout the ages. In pointing this out, Hoff is not criticizing TQM, but he is merely showing the empirical and pragmatic foundation from which TQM began. Hoff states that TQM is different in two very important factors from past quality and management methodologies. TQM requires the interplay between many different systems and TQM requires the total buy-in and immersion from the practicing organization.

Ryan (1995) places another perspective on the buy-in and interplay of the practicing organization. Ryan states that the organization must not only buy-into the TQM program it must change its management philosophy to accommodate the reality of employee empowerment and contribution. If the organization embraces TQM, but the managers punish employees that respond to empowerment by taking initiative and make a mistake along the way, the employees will not trust the process and will fear exposure and taking initiative. In essence, if nothing in the companies changed but the words, then management and employees alike resist empowerment. Ryan also states that continual learning is vital to TQM initiatives because the total quality effort never ceases. Employees at all levels must continually acquire new knowledge and skills and be allowed and encouraged to apply them in a changing workplace. With TQM presenting a

primary problem-based modality for business, ineffective or incomplete applications of TQM have negative impact on the business choosing TQM as their means of aligning the organization to meet customer needs.

Shin and Kalinowski (1998) conclude that if implemented properly, TQM can be a powerful vehicle for process improvement and for achieving excellence in business performance. However, companies have entered into TQM programs without the proper preparation or expectations and abandoned the TQM program blaming the TQM program for the failure. They also conclude that TQM is not a short-term fix**.** TQM is a long-term, never-ending commitment to the improvement of quality and performance. Organizations implementing TQM must be willing to stay with the program because the results will not usually be immediate. Organizations must also carefully examine their readiness for TQM quality initiatives and must keep in mind the critical stages where certain practices are more appropriate than others. Achieving process improvement and operational excellence in businesses via TQM are accomplished through having a robust mechanism for identifying and resolving existing problems and then by using the learning acquired in problem-based to identify and implement means for preventing future problems.

Lemak and Reed (1997) determined that commitment to TQM had a positive relationship with firm performance. The authors studied 60 firms and utilized their annual reports to determine whether they had made a corporate commitment to quality. The study utilized z-scores to analyze the stock market evaluation phase of the analysis and t-score tests to analyze the firm's annual report accounting phase of the analysis. The various firms in the study were observed for three years, and it was determined that the firms utilizing TQM significantly outperformed the firms not utilizing TQM.

Rapert and Babakus (1996) also determined that a positive relationship existed between quality and performance. The authors sent surveys to CEOs and marketing executives at American Hospital Association member hospitals. The results of the study indicated that the higher-performing hospitals exhibited a higher quality orientation that did the lower-performing hospitals. The study demonstrated that the most significant TQM element present in the higher-performing hospitals was the hospital's overall commitment to quality.

Black and Porter (1996) conducted a study to determine the critical factors in TQM. They used as a baseline the Malcolm Baldrige Award criteria and added several factors from a literature review. The sample was taken from the membership of the European Foundation for Quality Management (EFQM). The sample returned 204 surveys from 33 different organizations. The study used a factor analysis and extensive statistically based validity and reliability work was performed on the survey tool, the research methodology, and the analysis of the results. The study was proven to be statistically valid and robust. The study produced 10 critical TQM factors with an accompanying 32-item set of variables. The 10 critical TQM factors identified by Black and Porter are presented in Table 2.2.

Table 2.2

Critical TQM Factors

	Critical TQM Factors
Factor 1	People and customer management
Factor 2	Supplier partnerships
Factor 3	Communication of improvement information
Factor 4	Customer satisfaction orientation
Factor 5	External interface management
Factor 6	Strategic quality management
Factor 7	Teamwork structures for improvement
Factor 8	Operational quality planning
Factor 9	Quality improvement measurement systems
Factor 10	Corporate quality culture

Note. From Black, S. A., & Porter, L. J. Critical Factors of TQM.(1996). *Identification of the Decision Sciences, v*27, 1 – 21, p. 19.

Black and Porter concluded that the results their study yielded were indicative of the fact that the field of TQM had gotten much more complex since the Saraph et al. study in 1988. Black and Porter had selected the EFQM for the study sample because the European quality assurance community had been using TQM for some time. But the European quality assurance community was expected to be less familiar with the Malcolm Baldrige Award criteria. Black and Porter recommended that a similar future study be conducted using a sample of U.S. quality assurance professionals.

Quality assurance systems in the U.S. began as quality control systems. Quality control systems were developed and implemented to optimize a company's internal manufacturing operation. Quality control efforts used statistical process control in the 1960s as an advance from the ineffective 100% end of line inspections. But the emphasis at that time was still on reducing scrap and rejects from the manufacturing process. It was not until the recognition and implementation of the works of statistical and quality assurance experts, such as W.E.Deming and J.M. Juran, that the emphasis of quality assurance turned to integrating the needs and expectations of the external customer (Hilmer & Karney, 1998).

W.E. Deming is widely believed to be the father of modern quality assurance systems, such as TQM, and quality assurance management philosophy (Hilmer & Karney, 1998). Deming's 14 points have become a guide for quality system structures and the underlying meaning and significance behind the systems, i.e., adopting a focus on customer needs, identifying and resolving operational and product / service problems, and adopting methodologies for continuous process improvement. The 14 points are presented in Table 2.3 with a summary of principle and observations (Deming, 1986):

Table 2.3
Deming's 14 Points

Point 1	Create constancy of purpose for continual improvement of products and service, allocating resources to provide for long-range needs rather than only short-term profitability, with a plan to become competitive, to stay in business, and to provide jobs.
Point 2	Adopt the new philosophy. We are in a new economic age, created by Japan. We can no longer live with commonly accepted levels of delays, mistakes, defective materials, and defective workmanship. Transformation of Western management style is necessary to halt the continued decline of industry.
Point 3	Eliminate the need for mass inspection as a way to achieve quality by building quality into the product in the first place. Require statistical evidence of built-in quality in both manufacturing and purchasing functions.
Point 4	End the practice of awarding business solely on the basis of price tag. Instead, require meaningful measures of quality along with price. Reduce the number of suppliers for the same item by eliminating those that do not develop and utilize statistical evidence of quality. Move toward a single supplier for anyone item, on a long-term relationship of loyalty and trust. The aim is to minimize total cost, not merely initial cost. Purchasing managers have a new job, and must learn it.
Point 5	Improve constantly and forever every process for planning, production, and service. Search continuously for problems in order to improve every activity in the company, to improve quality and productivity, and thus to constantly decrease costs. It is management's job to work continually on the system (design, incoming materials, maintenance, improvement of machines, supervision, training, and retraining).
Point 6	Institute modern methods of training on the job for all, including management, to make better use of every employee. New skills are required to keep up with the changes on materials methods, product design, machinery, techniques, and service.
Point 7	Adopt and institute leadership aimed at helping people to do a better job. The responsibility of managers and supervisors must be changed from sheer numbers to quality. Improvement of quality will automatically improve productivity. Management must ensure that immediate action is taken on all reports of inherited defect, maintenance requirements, poor tools, fuzzy operational definitions, and other conditions detrimental to quality.
Point 8	Encourage effective two-way communication to drive out fear throughout the organization so that everybody may work effectively and more productively for the company.
Point 9	Break down barriers between departments and staff areas. People in different areas, such as Research, Design, Sales, Administration, and Production, must work in teams to tackle problems that may be encountered with products or service.
Point 10	Eliminate the use of slogans, posters, and exhortations for the workforce, demanding Zero Defects and new levels of productivity, without providing methods. Such exhortations only create adversarial relationships; the bulk of the causes of low quality and low productivity belong to the system, and thus lie beyond the power of the workforce.
Point 11	Eliminate work standards that prescribe quotas for the workforce and numerical goals for people in management. Substitute aid and helpful leadership in order to achieve continual improvement of quality and productivity.
Point 12	Remove the barriers that rob hourly workers, and people in management, of their right to pride of workmanship. This implies, inter alia, abolishment of the annual merit rating (appraisal of performance) and of Management by Objective. Again, responsibility of managers, supervisors, foremen must be changed from sheer numbers to quality.

Point 13	Institute a vigorous program of education, and encourage self-improvement for everyone. What an organization needs is not just good people, it needs people that are improving with education. Advances in competitive position will have their roots in knowledge.
Point 14	Clearly define top management's permanent commitment to ever-improving quality and productivity and their obligation to these principles. Indeed, it is not enough that top management commit themselves for life to quality and productivity. They must know what it is that they are committed to, i.e., what they must do. Create a structure in top management that will push every day on the preceding 13 points, and take action in order to accomplish the transformation. Support is not enough; action is required to assure.

Note. From Deming, W. E. (1986). Out of Crisis. *Cambridge MA:MIT Center for Advanced Engineering Study.* p. 87.

A paradigm shift is occurring in the way organizations are being designed. This new framework incorporates elements of such ideals as total quality management (TQM), the learning organization and world-class status. TQM refers to a continuous strategy for the maintenance of quality within an organization. It involves core values such as customer orientation, leadership, error prevention, and management by fact and public responsibility. On the other hand, the learning organization, anticipates change by making a strong commitment to learning and shared values and knowledge through dialogue, process reengineering and scenario analysis. However, becoming a world-class organization requires the combination of elements from the former paradigms into a new framework, which encompasses a customer-based focus, continuous involvement on an international level, fluidity, an egalitarian atmosphere, technological support, and creative personnel management (Hodgetts et al, 1994). These fundamental elements of TQM are depicted in Figure 2.1.

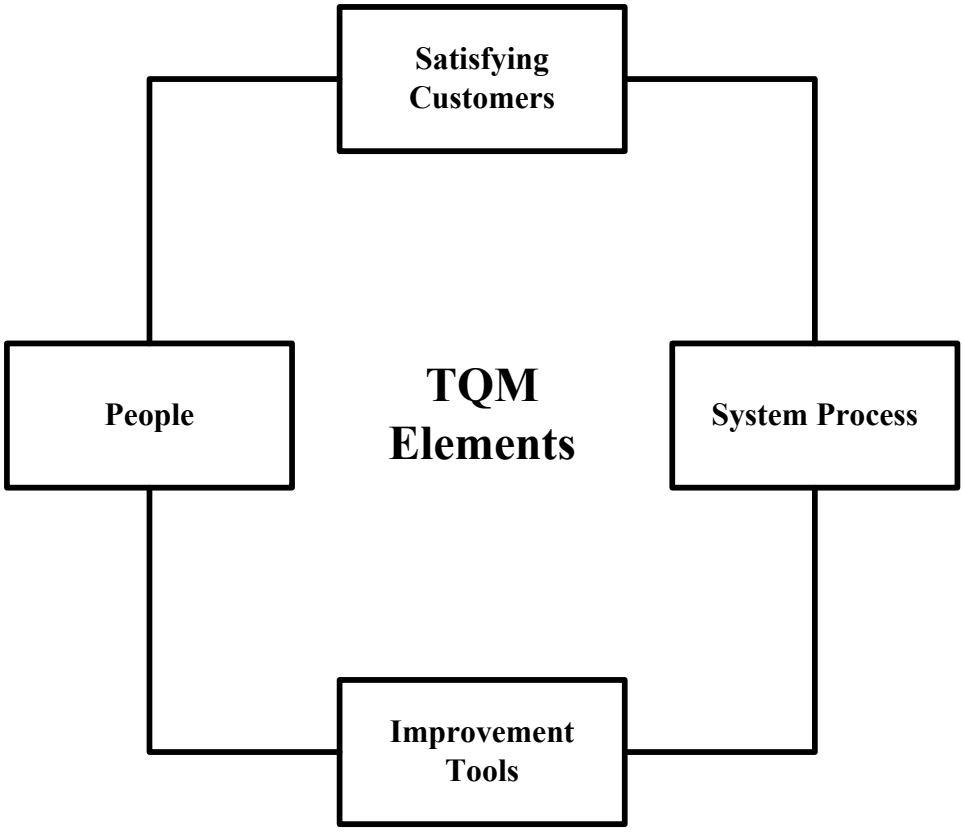

Figure 2.1. Elements of TQM. Note. From Hodgetts, R. M., Luthans, F., & Lee, S. M. (1994). New Paradigm Organizations. *Organizational Dynamics,* 22, 4 – 12, p. 9.

TQM is not a stand-alone quality system process, it is integrated with other quality systems. Customer needs can be identified and met utilizing a quality system organizational structure called Quality Function Deployment (QFD), which requires a business to orient itself in a manner which assures that all of the company's internal functions are aligned for listening to customer needs and meeting customer expectations. Farrell (1994) determined that QFD is market driven and provides a business needed orientation and structural alignment to the needs of the customer.

> Quality function deployment (QFD) is a market-driven product definition process that enables business enterprises to focus on design, engineering and manufacturing processes when developing a product definition to satisfy customer requirements. US corporations discovered the Japanese developed QFD after investigating the factors that led to the success of Japanese business enterprises. The matrix, which is a very basic QFD tool, is a clear representation of two sets of information. It indicates how the sets of information relate to each other. Matrices may be effectively used if development teams are able to determine the desired output and the input source. QFD also enables users to understand and prioritize the customers and their requirements. It also enables business enterprises to identify and address the vital

concerns of their most important buyers. (p. 45)

The next section further describes via review of a number of studies, the integration of the separate quality systems into a single unifying fabric termed TQM. The separate quality systems each provide necessary elements of quality assurance and quality control, but the power of the TQM is found in their holistic approach and their integration. Customer focus is gained via developing and applying cross-functional listening systems.

The interdependent structure and culture of TQM. TQM, as depicted in Figure 2.2 below, is comprised of five interactive elements, each of which must function both independently and interdependently (Miller, 1996). Miller is careful to state that this view of TQM is from a theoretical perspective and does not take into account the manners in which TQM is frequently practiced within corporations.

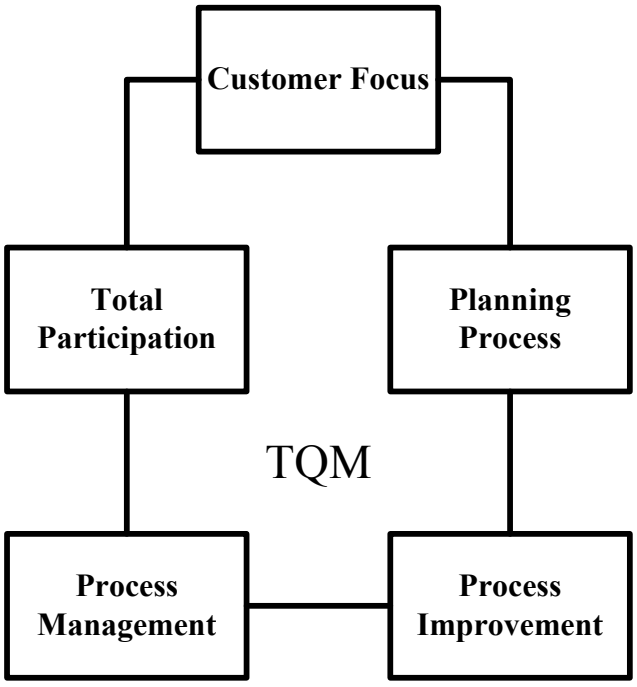

Figure 2.2. TQM's Primary Elements. Note. From Miller, W. J. (1996). A working definition for total quality management. *Journal of Quality Management, v* 1, 149 - 159.

TQM is also frequently used by corporations as a tool for organizational transformation efforts and meeting the corporation's strategic vision. McArthur (1996) explains that TQM has a fundamental objective of improving business performance and fits with ISO, which provides the quality system with elemental structure, as shown in Figure 2.3.

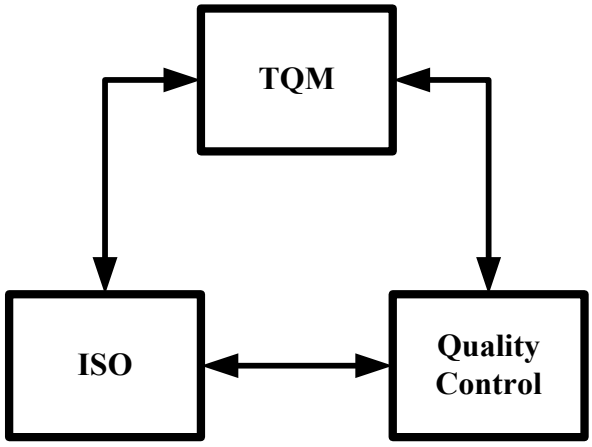

Figure 2.3. TQM and ISO Building Blocks, From. McArthur, C. D. (1996). Rethinking the science of management. *Management Review, v* 85, 62 - 66.

In order for a corporation to achieve long-term performance objective, it must pay attention to more than just the TQM mechanism or process. The process approach must be balanced with an understanding of intent and business interrelationships. Once the corporation's strategic TQM vision has been developed and communicated to employees, several typologies have been proposed for categorizing the strategic responses. Dansky and Brannon (1996) propose that TQM provides a mechanism for a corporation to link its vision to its actions, thus implementing its strategic orientation. The various strategic orientations outlined were:

> 1) Prospectors consistently attempt to be first in the market; they stress innovation and flexibility in order to respond quickly to changing market demands.
> 2) Defenders concentrate on a stable core of services in a market niche with little or no new product/market development; instead, Defenders emphasize control of operations.
> 3) Analyzers try to balance risk taking and innovation with cost-containment and efficiency; thus they combine elements of both prospector and defender strategies.
> 4) Reactors have no consistent strategies. (p. 231)

The scope of Dansky and Brannon's study consisted of determining the strategic

orientation of an organization, determining the TQM level applied by the organization, and then attempting to correlate the strategic orientation to the TQM level. The sample in the Dansky and Brannon study was a survey mailing to 1,050 CEOs or Executive Directors of home health care agencies in the U.S. The returned, usable, surveys totaled 361 (response rate of 35%). The findings demonstrated that the analyzer and prospector organizations were more likely than the defenders to be involved in total quality management efforts. The reactors showed no consistency one way or the other in their use of TQM. The caveat for managers, then, is that TQM is a combination of tools that an organization can use in furthering its strategic objectives.

Why TQM fails. Harari (1997) describes ten reasons why TQM will fail in an organization if TQM is not openly integrated into the business philosophy, strategy, vision, mission, and objectives. These ten reasons for TQM failure are:

1) TQM focuses people's attention on internal processes rather than on external results
2) TQM focuses on minimum standards
3) TQM develops its own cumbersome bureaucracy
4) TQM delegates quality to quality czars and experts rather than to real people. TQM delegates quality to quality czars and experts rather than to real people
5) TQM does not demand radical organizational reform
6) TQM does not demand changes in management compensation
7) TQM does not demand entirely new relationships with outside partners
8) TQM appeals to faddism, egotism and quick-fixism
9) TQM drains entrepreneurship and innovation from corporate culture
10) TQM has no place for love (p. 44)

It is Harari's contention that TQM can benefit an organization because it can give an organization a needed quality focus if it is lacking one. But for an organization that is already customer and quality focused, TQM can become a bureaucratic distraction. Harari believes that for an organization that is already successfully implementing a customer focus and producing quality products, when the TQM hype is stripped away it is found that TQM contributes a small amount to the quality of the corporation's offerings.

Wittmann (1997) also believes that it is organizationally detrimental for managers to

begin using TQM and then not respond to the information gathered by employees. One of the fundamental principles of TQM is to measure and improve. Wittmann states that management has to have a clear understanding of its goals prior to asking employees, line workers, etc., to begin gathering data. To gather data and not respond to it wastes the initial data acquisition time and discourages employees from making additional contributions. Wittmann believes that managers often cling to TQM because they need a management technique, any technique, to help them do a job for which they have little talent. He believes that managers further cling to the TQM mantra of "measure and improve" because it seems so logical. The problem comes in with the second action, "improve." Often the manager has no idea how to improve what they have measured. It is essential in TQM to understand what is being looked for, to recognize the benefit of the information provided, and then to act responsibly when the information is provided.

Similarly, TQM is a complex process. Thompson (1998) sees paradoxes in the TQM process. It is in recognizing and resolving these paradoxes that TQM becomes the effective management tool that it is. The paradoxes that are stated and resolved are presented in Table 2.4.

Table 2.4
TQM Paradoxes

Paradox 1	Seek diversity, but build a shared vision. Managing the paradox: Seeing diversity and a common vision as two different constructs provides the key to reconciling the first paradox. Clearly there is no room for heretics when it comes to belief in the goals of the organization, its mission, and the central importance to its customers. These beliefs are essential for uniform action. But neither should there be dissenters to the creed affirming the value of diverse views in analyzing problems and potential solutions. This diversity is vital to the company's long-term health.
Paradox 2	Encourage creativity, but be consistent in everything. Managing the paradox: Once the leader and followers realize that there are two distinct dimensions to each task, the paradox is manageable. Conforming to standards must be reinforced in the operational dimension, creativity and sharing new ideas is in the second dimension.
Paradox 3	Focus on continuous process improvement, but make break-through change an important part of the job. Managing the paradox: Leaders must provide the culture to support both break-through and continuous process improvements. This can only be done through deliberate steps to balance both types of change. Without this balance, there is a risk that thinking will be focused on incremental changes that will preclude the "outside the box" thinking needed for break-through changes.
Paradox 4	Use autonomous work groups to enhance performance, but ensure careful and uniform control of

	product and service quality. Managing the paradox: The paradox is real. The concepts of "control" and "autonomy" are clearly in opposition to each other. Reconciling this requires a great deal of leadership skill. The leader must concentrate on finding key indicators of performance that still provide reliability and consistency, while allowing employees discretion in how they reach their performance goals.
Paradox 5	Build a cohesive work team, but welcome conflict when critically analyzing ideas. Managing the paradox: As with the first paradox, this paradox is difficult to resolve if we consider cohesiveness and conflict as two ends of a continuum. Conflict is good and builds cohesiveness if it is built on a framework of mutual respect and focused on the issues.
Paradox 6	Set realistic, yet challenging goals for maximum performance, but use stretch targets to dramatically improve performance. Managing the paradox: The organizational leader must handle the sixth paradox on two levels. Challenging but realistic goals are helpful for normal operational performance and continuous process improvement.
Paradox 7	Reward team effort, but create a high performance climate for individuals. Managing the paradox: This paradox is real. The leader's job in managing this paradox is to balance both dimensions carefully, without losing sight of either individual motivation or collaborative efforts (p. 70).

Note: From Thompson, K. R. (1998). Confronting the paradoxes in total quality management. *Organizational Dynamics, v26,* 62 – 76, p. 73.

Thompson states that the paradoxes, each of which presenting themselves as problems to be solved within and by the TQM paradigm, have a powerful purpose. In recognizing and resolving the paradoxes the leader will gain a sharper focus on the total quality environment. The seven paradoxes are grouped around three focal point centers. These are focal point center: 1) creating the culture of the work environment – paradoxes 1,2,3 focal point center; 2) building a responsive team environment - paradoxes 4,5,6 focal point center; 3) and reinforcing a performance-centered environment - paradox 7. According to Thompson, each of the focal points is related to the success of the quality effort. The paradoxes are related to each of the focal points, and the focal points give the paradoxes purpose. Thompson believes that the paradoxes are important in building the kind of sensitive leadership that will be necessary in building a truly cooperative organization.

Hackman and Wageman (1995) developed a similar TQM analysis showing that even when developed and implemented well, TQM programs are fraught with conceptual difficulties

and dilemmas. These authors point out that one of the more difficult areas of TQM is in the design of work. TQM requires the use of cross-functional teams and task forces, and the work of these teams is usually well designed motivationally. But the design of work for the front-line producers is usually not as well developed. Occasionally a front-line producer is given the opportunity to work on a cross-functional team, but usually the front-line producer is relegated to working at a set functional task or series of tasks. The motivational structure for the front-line then is often not altered by TQM, and there is little opportunity or incentive for them to try to do other than their set functional routine.

Hackman and Wageman also project that TQM might well gradually lose the prominence and popularity it now enjoys due to some worrisome trends that have nothing to do with the quality of ideas set forth by TQM founders. These trends are:

> Rhetoric is winning over substance. The rhetoric of TQM is engaging, attractive, and consistent with both the managerial Zeitgeist in the United States and this country's preference for organizational solutions that smack of rationality. An astonishing number of other interventions, some related to TQM and some not, are increasingly being herded under the TQM banner. Research is not providing the corrective function for TQM that it could and should. (p. 320)

Marash et al. (2004) describe a primary failing of TQM as the lack of process, tools, and training other than conceptual orientation to customer needs and describe the subsequent evolution of other rigorous problem solving techniques such as Six Sigma as intending to remediate for this lack of process and analytical rigor. Other mechanisms developed to address this lack of process include the development and institutionalization of Quality Engineering Certification by the American Society for Quality (American Society of Quality, 1998). This program uses as a baseline the *Quality Control Handbook* (Juran, 1994). The ASQ certification program consists of study preparation and a four-hour certification exam. Customer satisfaction is a separate section of the exam consisting of 30 questions. The customer satisfaction sub-categories include: 1) types of customers, e.g., internal, external, and end-user, 2) elements of the

customer-driven organization, 3) customer expectation, priorities, needs, and voice, 4) customer relationship management and commitment, e.g., complaints, feedback, guarantees, and corrective actions, 5) customer identification and segmentation, 6) partnership and alliances between customers and suppliers, 7) communication techniques, e.g., surveys, focus groups, satisfaction/complaint cards, 8) multiple-customer management and conflict resolution, and 9) customer retention/loyalty. The next section provides additional description of the importance of gathering and utilizing customer satisfaction data and information.

TQM Viewpoints

Employee Viewpoints. Allen and Brady (1997) studied TQM from a different perspective, from an employee's point of view. They state that the practitioner-based literature says that TQM makes a positive difference in employee buy-in and perceived level of organizational support. Their study attempted to determine whether TQM actually made a difference for employees as claimed by the practitioner-based literature. The study was conducted across a large university, a military operation, and an engineering firm. As a result of the study, Allen and Brady determined that employees in organizations utilizing TQM had higher levels of attitudinal commitment and believed that they received a higher level of managerial support than did employees in organizations that did not utilize TQM.

One factor that has been documented as important is top management commitment and buy-in for the assurance of an effective TQM program (Oliver, 1996). Oliver points out that an executive level steering committee must be created which plans the events of the entire organization, develops goals, and creates and shares the overall organizational vision. In addition the organizational leaders will be scrutinized carefully by employees to see if they are "walking the quality talk."

Small company viewpoints. There has also been some discussion relative to the appropriateness of TQM for small versus large companies. A study by Ahire and Golhar (1996) attempted to look at that question. The companies studied were all in the auto parts supply business. The auto parts supply business was chosen because of its long-term successful application of TQM. The results of the study indicated that with the exception of customer focus and statistical process control (SPC) usage, there were no statistical differences between small and large TQM firms. The small firms reported slightly better customer focus, but this finding was not statistically significant. This was attributed to the small firm's local proximity and personalized dealings with their customers. The larger firms reported a higher utilization of SPC, and this was attributed to their having a larger and more specialized infrastructure. The next section describes some of the advantages of using TQM in organizations.

The TQM Advantage

It has been speculated that TQM with its customer focus and organizational alignment provides companies advantages in the marketplace through internal operational improvements and meeting customer needs that lead to improved financial performance (Marash et al., 2004). Lemak and Reed (1997) studied the relationship between commitment to TQM and a firm's performance. The sample was 2,200 firms and their TQM application was determined by reading their annual reports. The hypotheses of their study were: H1: Firms that implement TQM will experience a significant increase in their stock value on a market and risk-adjusted basis, during and after the period that information about the adoption of TQM is made public and H2: Firms that implement TQM will show increased profit margins, compared to their performance prior to adoption. The results indicated that H1 was supported with the statistical analysis demonstrating that the market sees TQM initiatives as a value-creating process. H2 was

also supported. The statistical analysis demonstrated that TQM improves profit margin. Within the first six months of implementation, firms implementing TQM experienced a 7.22% higher return than similar firms not implementing TQM. This was followed by an additional 3.37% increase above the expected norm within the next six months of operation. The Lemak and Reed study demonstrated that TQM improves the performance of firms.

A second study by Patino (1997) demonstrated that TQM could be applied to the research and development (R&D) function at Coors Brewing Company. Patino's findings showed TQM within the R&D community manifested itself in the following ways: 1) customer focus and top-level leadership's commitment to quality were improved; 2) the right metrics were used; 3) the determination of the baselines for the right metrics were made; 4) positive benchmarking "best practices" were implemented; 5) goals for comparing baseline benchmarks were determined; 6) TQM training as the system affects the researcher's work was provided; and 7) a continuous improvement process was launched.

At Coors, the support of top management for TQM helped the researchers buy into the TQM process, and as a result, the implementation was successful. The TQM process became a way of life for daily R&D operations at Coors, and the researchers began to understand that TQM meant doing things right the first and every time. TQM provided a work process for Coors R&D that improved the success rates of R&D projects, lowered the average costs, shortened the cycle time for R&D projects, and improved the process of transferring R&D projects to production.

A third study by Wilkes (1996) commissioned by the Association of Quality was conducted in the industrial sector by researchers at the University of Southern California. The study demonstrated that only 10% of the U.S. Fortune 1000 companies producing tangible goods

are engaged in sophisticated TQM programs which emphasized employee empowerment. The study also determined that 81% to 83% of the companies that had tried employee empowerment reported a positive experience with it. Those companies using TQM with a high degree of power-sharing outperformed those that were using TQM with low power-sharing by the following amounts: return on assets 6.9% versus 4.7%, investment 14.6% versus 9%, and equity 22.8% versus 16.6%.

A fourth study by McAllister (1995) demonstrated that TQM is applicable to the investment community in addition to the industrial community. McAllister reported that after implementing TQM, a very small Australian and New Zealand investment firm became the best performing international equity fund in Australia and New Zealand. Between the time that the fund was begun in 1991 and the time the McAllister study was completed in 1995, the small fund with less that $20 million dollars to manage had a gross return to investors of 12.1% after tax and 10.2% annually after tax when excluding dividends.

As previously described, a key principle of TQM is an intense focus on customers and their satisfaction. Ward (1994) assessed TQM's capacity to aid in identifying and meeting customer satisfaction requirements in the information systems (IS) business. He determined that for IS professionals to use and benefit from TQM they had to apply several TQM principles.

> IS must identify, measure, and design in, the product and service attributes that the customer cares about. How do you know what these attributes are? As a start, you ask the customer. However, this is only a start. Organizations that become adept at TQM are able to go well beyond asking the customer to anticipating the future needs and desires of the customer.
>
> You must continually monitor customer satisfaction. The only determination of quality that really matters is the customer's perception. Customer feedback and participation in the process is essential. Formal and continuous monitoring are needed to keep the organization focused.
>
> Management must make sure that all concerned know their customers, both internal and external. Furthermore, it is essential that they understand how the ultimate customer uses their products and services. All employees should understand how each process used in producing products and services adds values for the customer. (p. 78)

Ward believed that the application of these TQM principles helped to assure that the

customer was satisfied because the customer's needs were fully known and met with a minimum of time and charges accrued by the IS organization. This "do it right the first time" approach met both the customer's needs and the operational needs of the IS department and its move to implement total process management.

Sorohan (1993) reported on a study conducted by the National Institute of Standards and Technology (NIST) that demonstrated that implementing TQM is profitable. NIST invested a hypothetical $1,000 in each of five publicly traded, whole-company winners of the Malcolm Baldrige National Quality Award. NIST tracked the hypothetical investment from the first business day in April of the year the companies won the Baldrige Award to October 3, 1994. The Baldrige companies delivered a 188% return on investment compared with a 27% return for the Standard and Poor's 500. Finally, in a study reported by Kaldenberg and Gobeli (1995) TQM methods used by dental practices were assessed for business outcomes. The TQM applications were demonstrated to have a significant impact on increased revenue, increased profitability, and increased new patients for the three year period of the study. The dentists reported that, as a result of TQM, they had improved clinical practice and introduced new services to their patients.

A significant contribution of TQM is in its orientation to the customer which includes first understanding customer needs and then in developing mechanisms for identifying and articulating customer satisfaction levels and specific customer imperatives (Keenan, 1996). Marash et al. (2004) describes a company’s internal identification and dissemination of a vision of customer satisfaction as essential to the successful implementation of TQM programming.

Applying TQM's customer satisfaction vision. Successful companies usually have some sort of customer satisfaction initiative underway, i.e., customer satisfaction surveys, focus groups, or complaint handling processes to identify and resolve things that would impede customer satisfaction (Rubel, 1995). Frequently well-intended customer satisfaction initiatives fail because either the wrong questions are asked or the answers to the questions are not fully understood.

Although many companies profess to see the need for and to have an active, integrated and contributive customer satisfactions program, demonstrating this has been a challenge for many (McCloud, 1994). One study in this area indicated that CEOs rate themselves high on being customer-driven but relatively low on action items that provide for the demonstration and execution of these ideas (Zivic, 1995). Zivic's study also indicated that the CEOs rated as very important "having a clear vision" but only 24% had disseminated a mission statement to their employees. Zivic references a book by Joel Barker written in 1993 in which Barker suggests that the most successful companies will be those that are truly customer driven and that essential actions to assure customer satisfaction are achieved by: 1) learning what the customers want; 2) learning how to provide what the customers want; 3) formulating or reformulating a mission statement on the basis of what the customers want and communicating it to every employee; 4) carrying out the mission; and 5) continuing to ask the customers what they want. Barker stresses the interaction of these particular customer satisfaction actions provides more significant and lasting benefit than would the singular and independent application of the specific elements.

The companies that have successfully used customer feedback have integrated two ideas into their program: 1) how you measure customer satisfaction is often as important as what you

measure and 2) that you must be ready to adapt and adjust your surveying methodology to ensure that you are actually listening to the voice of the customer (Keenan, 1996). Royal (1995) pointed out that there are three things that will keep customers:

> 1) Continually using surveys, sales calls, focus groups, and outside research to learn more about your customers than they know about themselves.
> 2) Keep information culled from customers in an up-to-date database.
> 3) Use the data to design new products. (p. 52)

AT&T Customer Satisfaction Director Roy Kordupleski strongly believes that the monitoring of relative customer value can help companies influence their market share. According to Kordupleski, AT&T gauges the impact of service quality to customers by using a variable called customer value added (CVA). This variable measures the value returned to customers who buy services from it and provides an estimate of the perceived worth of AT&T's service in comparison to services offered by competitors. At AT&T, as Kordupleski explains, CVA is regularly monitored to help gauge the impact of programs and transactions on service quality. This research is done using marketing research data to measure whether new programs are worth the price paid by customers. Such data are typically derived from consumer surveys that focus on customer reactions to various aspects of a service package (Rubel, 1995).

A related Arthur Andersen survey of 289 CEOs indicated that 47% stated that customer satisfaction was the main goal of their business-improvement activities (O'Leary, 1996). In the same article, it was also noted that the CEOs were becoming the drivers for their customer satisfaction focus. It was suggested that the following will help a CEO assure a successful implementation of a customer satisfaction initiative:

> 1.) Set the example. For an integrated customer-satisfaction program to be successful that CEO must demonstrate that this is an ongoing initiative. 2.) Move beyond surveys. Every customer contact must be considered a learning opportunity. 3.) Stretch your management. Customer satisfaction activities must be incorporated into the company's overall objectives. 4.) Partner with your customers. CEOs and top management must visit key customers every year. (p. 67)

An example of the use of such information in a highly competitive industry is the health insurance industry. Its survival is dependent upon utilizing scarce resources to strategically meet the anticipated needs of the consumer (Westbrook, Pedrick, & Bush, 1996). It is essential in this field for the insurer to understand the level of desired coverage and how to handle customer concerns. To meet these needs insurers have begun using a series of measures like the Service Quality (SERVQUAL) and the Service Performance (SERVPERF) survey tools. However, many in the insurance business are beginning to question the applicability of these tools for health care administration.

Management in the health insurance business typically uses delivery-related measurements for customers and process-related measurements for employees. Consequently, it has been suggested in the health care industry that the clients would also be interested in evaluating the processes that the various insurers are using. With this in mind, there are efforts underway to try to integrate the customer-related SERVQUAL tool with a process-related evaluation tool specifically for use in the health care insurance industry, and this tailoring process could have applications in other business areas as well (Westbrook, et al., 1996).

Customer satisfaction measurements and a corporation's effective response to that data can often provide the capacity for a corporation to stay competitive in a changing marketplace. In 1990, the Schlage Lock Company, based in San Francisco, California, was losing its competitive position as the world's premier manufacturer of locks (McCloud, 1994). It was determined that Schlage was losing ground because it was concentrating on its existing product line and was not anticipating changing customer demands and needs. Schlage instituted a program aimed at reaching the customer and meeting their needs and used five key areas of improvement to do this. These areas were: 1) process reengineering, 2) customer driven

applications recommendations, 3) customer driven technology recommendations, 4) IS management recommendations, and 5) a well-developed implementation plan. Customer focus soon became a reality because the company opened the channels of communication, listened to customer suggestions, and then aggressively acted on the suggestions (McCloud, 1994).

Many businesses profess to believe in and implement customer service focus and alignment to customer needs, but when pressed it is difficult for even their senior teams to articulate exactly how that's consistently done and with what degree of institutionalism and results (Marash, et al., 2004). Without an operating mechanism and metrics reviewed, tracked and reported on with an appropriate frequency, customer service and satisfaction are frequently relegated to the use of optimistic sounding buzzwords and annual reporting statements of cultural commitment (Kaldenberg & Gobeli, 1995).

Measuring customer satisfaction. One of the best and most frequently copied customer satisfaction measurements has been the Swedish Customer Satisfaction Barometer (SCSB) (Anderson, Fornell, & Lehmann, 1994). The SCSB provides yearly firm-level metrics for quality, customer expectations, and overall customer satisfaction for various competitors in a number of product and service industries. A firm's metrics are derived from surveys of its current customers. For an insurance company, as an example, these metrics could include claim adjustment cycle time. The SCSB thus provides a standardized set of customer-derived performance metrics that can be compared to economic performance measures. The SCSB has been developed using a methodology that maximizes the relationship between customer satisfaction and the likelihood of repeat purchases (Anderson, et al., 1994).

The American Customer Satisfaction Index (ACSI), another measure, was derived

from the SCSB and uses a very similar customer-based response measure for customer satisfaction and compares that to the likelihood of repeat purchases. It is a market-based performance measurement for firms, industries, economic sectors, and national economies (Fornell, Johnson, & Bryant, 1996). Use of the ACSI had indicated that the domestic U.S. customer satisfaction rating is higher for goods than services and higher for services than for governmental agencies. Particularly disturbing is the steady decline in domestic customer satisfaction ratings over time across all of the indices. This has been most significant in the service industry.

Some of the other significant findings in the last few years have been related to the correlation of customer needs to product and service offerings. This has been most significant in the service sector and findings using this scale have been: 1) customization of products or services to meet the specific needs of a single customer is more important than product or service reliability in determining customer satisfaction, with reliability defined as the capacity to use the product or service effectively each time it is used or needed; 2) customer expectation plays a greater role in sectors in which variance in production is relatively low; and 3) customer satisfaction is more quality-driven than value- or price-driven (Fornell, et al, 1996).

Service quality, another area of the customer satisfaction focus, is defined as the degree of discrepancy between customer's normative expectations for the service and their perceptions of the service performance. To better specify this area, a SERVQUAL scale was produced from empirical research that measures quality along five dimensions: 1) reliability, 2) responsiveness, 3) assurance, 4) empathy, and 5) tangibles. SERVQUAL operationalizes service quality by subtracting customer's expectation scores from their perception scores (Hauser & Simester, 1996). The next section distinguishes between internal and external customers and describes the

significance of also measuring internal customer satisfaction.

Meeting internal customer expectations. Customer service evaluations and quality assurance initiatives alike are beginning to apply a focus to establishing and maintaining good internal customer relations as well (Parasauraman, Zethaml, & Berry, 1994). Each step in a process, whether a material or documentation flow, represents movements from one internal customer to another. Quality assurance departments are by their very nature service organizations because their value added to an organization is in the approval, verification, and performance trending of the work done by other organizational functions, i.e., manufacturing, engineering, etc. In order to be an effective discipline, quality assurance has to use its data collection and surveillance capacities to inform operations groups of downward trends in production rates and to inform commercial groups and design groups of customer feedback through complaint handling systems. Clear, timely, objective, and concise input is required of quality assurance areas. Many firms are beginning to survey their internal customers and their internal suppliers for these reasons. These internal customer/supplier surveys are in part aimed at pushing customer and market orientation deep into a corporation, but it is also in large part striving to optimize the corporation's internal effectiveness and communications (Parasurmann, et al, 1994).

Knowledge base-lining for customer satisfaction information rests in the use of various complex internationally applied indices such as ACSI, SCSB, and SERVQUAL. While customer satisfaction measurement has become the norm for many industries and businesses, to date, there have not been any comprehensive studies undertaken to determine how quality assurance professionals operationalize their training and education to identify and meet customer satisfaction expectations. The next section will examine some of these "success factor"

issues.

Critical success factor methodology. The corporate business system is a combination of unrealistic deadlines, conflicting requirements, scarce resources, immediate communications, demanding customers, and fierce competition (Bullen, 1995). Managerial attention frequently moves from one crisis point to another without the benefit of comprehensive planning or effective metrics for performance measurement (Mintzberg, 1973). The traditional managerial accounting and reporting system for performance tracking usually gives a fairly good retrospective view of where the business has been, but is rarely sufficient, in-and-of itself, for either effective predictive planning or remedial corrective action.

Critical success factors (CSFs) methodology helps managers move through the complex and frequently conflicting requirements and demands facing them and helps to identify the few main areas that are critical to their roles and their organizations. The concept of using CSFs as a framework for strategic planning began to be used in the late 1970s by corporations in many different industries and business fields (Bullen, 1995). CSFs provide management with the ability to focus attention on the main activities that need to be done effectively in order for the business to be successful. CSFs are found at many levels. Individuals have CSFs relating to their roles and styles, and corporations have CSFs which result from their missions, products/services, customers, and the personal CSFs of their managers. At a higher level, industry CSFs derive from products/services, customers, and competing organizations.

Critical success factor methodology consists of a three stage approach: 1) listing goals and objectives, 2) identifying the CSFs necessary to achieve the goals and objectives, and 3) identifying/determining ways in which the CSFs are to be measured. This is frequently conducted in an interview process in which a skilled interviewer utilizing a toolkit of tested

questions can elicit a full range of CSFs in as little as an hour and a half. The identification and use of CSFs represents a paradigm shift for many managers. With CSFs, management moves away from a traditional cost accounting-based productivity reporting structure to a method which accurately identifies the few elements or activities that are truly critical to the survival and growth of the business, and then concentrates resources and action in their direction (Bullen, 1995). The next section provides a culmination of the review of the TQM literature by describing the studies done to date to identify the critical success factors of TQM.

Studies identifying the critical factors of TQM. In 1988, Saraph, Benson, and Schroeder undertook a study to identify the critical factors of TQM. This was one of the first broad-based studies to address this topic. The study method was comprised of a sampling of small, medium, and large companies in the domestic U.S. Critical factor analysis was used along with several methods for determining the statistical reliability, validity, and robustness of the findings. A total of 162 managers from 20 companies responded in the study. Each manager responded to survey questions asking about the quality management practice in his/her business by rating each measurement item using a method that allowed for the correlation of each item with the entire scale. The resultant item analysis placed 78 TQM variables into eight TQM primary factors. These eight primary factors were the TQM Critical Factors shown in Table 2.5.

Table 2.5

TQM Critical Success Factors

Factor 1	Role of divisional top management and quality policy
Factor 2	Role of the quality department
Factor 3	Training
Factor 4	Product/service design
Factor 5	Supplier quality management (supplier of goods or services)
Factor 6	Process management/operating procedures
Factor 7	Quality data and reporting
Factor 8	Employee relations (p. 817)

Note. From Saraph, J. V., Benson, P. G., & Schroeder, R. G. (1988). An Instrument for Measuring the Critical Factors of Quality Management. *Decision Sciences, v* 20, 810 – 828, p. 817.

Saraph, Benson, and Schroeder concluded that no previously published research had developed a comprehensive set of requirements that spanned the literature. These eight critical factors of TQM had been synthesized from many authors and proven via their statistically significant survey analysis. This paper was truly a ground-breaking study.

Badri and Davis (1993) repeated the Saraph et al (1988) study using the same eight TQM critical factors and the same 78 TQM variables and demonstrated that the Saraph et al study's data were statistically significant with high validity and reliability coefficients. The Badri et al. (1993) study reported slightly higher alpha levels with reliability coefficients ranging from 0.8885 - 0.97. The Badri et al. study was conducted in the United Arab Emirates (UAE) across 854 firms with 424 firms responding. Follow-up interviews with this sample indicated that while the responding managers understood enough about TQM to respond appropriately, their actual comprehension and practice of TQM was minimal. Quality awareness in the UAE is very recent and most managers have not come to understand the full role that a quality department plays.

Consequently, the interaction between the quality departments and the rest of the company was minimal and the knowledge and application of statistical process control was very low. During the follow-up interviews only 2 of the 424 participating firms admitted that they had tried quality circles. The two firms that had tried quality circles had done so by contracting with foreign firms. Both had abandoned the programs due to cost and the perceived lack of progress. It was also determined in the follow-up interviews that TQM was a hot topic amongst the managers and that they had done some base level of reading on the topic, but they did not fully comprehend the significance of the program. The authors felt that the respondents had answered the survey in a manner that provided the optimum TQM response versus the reality of their

respective operations.

Black and Porter (1996) also conducted a study to determine the critical factors in TQM. They used as a baseline the Malcolm Baldrige Award criteria and added several factors from a literature review. The sample was taken from the membership of the European Foundation for Quality Management (EFQM). The sample returned 204 surveys, out of 947 initially sent out, from 33 different organizations. The study used a factor analysis similar to the statistical methodology used by Saraph et al (1988). Extensive statistically based validity and reliability work was performed on the survey tool, the methodology, and the analysis of the results. According to the authors, the results were proven to be statistically valid and robust. The study produced 10 critical TQM factors with an accompanying 32 item set of individual variables. The 10 critical TQM factors identified by Black and Porter (1996) are described in Table 2.6.

Table 2.6
Critical TQM Factors

Factor 1	People and customer management
Factor 2	Supplier partnerships
Factor 3	Communication of improvement information
Factor 4	Customer satisfaction orientation
Factor 5	External interface management
Factor 6	Strategic quality management
Factor 7	Teamwork structures for improvement
Factor 8	Operational quality planning
Factor 9	Quality improvement measurement systems
Factor 10	Corporate quality culture (p. 20.)

Note. From Black, S. A., & Porter, L. J. Critical Factors of TQM.(1996). *Identification of the Decision Sciences,* v27, 1 – 21, p. 19.

Black and Porter concluded that the results of their study suggested that the field of TQM had gotten much more complex since the Saraph et al study in 1988. In selecting the European Foundation for Quality Management, in order to acquire the sample, Black and Porter state that they picked this group because the European quality assurance community had been using TQM for some time. At the same time, the European quality assurance community was expected by

Black and Porter to be less familiar with the Malcolm Baldrige Award criteria (in order to avoid obvious biasing tendencies). Black and Porter recommended that a similar future study be conducted using a sample of U.S. quality assurance professionals in order to compare those results with their findings.

Corporations in the U.S. are competing in a very difficult domestic and international market, and the needs to optimize internal operational performance and to identify and meet the needs of the customer have never been greater. Total quality management provides corporations the means to achieve these goals through utilizing a fully integrated problem-based management system. In order for a corporation to effectively design and implement a TQM system it is essential to first identify the critical success factors of TQM systems.

Summary

Regardless of cloaking, manner of introduction, or of the chosen vernacular and specific tools applied, the basics of problem-based essentially remain the same. Problem-based used, beyond that of pure research, in business and other applications has further morphed the scientific method of problem-based into one that defines the problem, acquires and measures relevant data, analyzes the results, develops potential improvements, and then applies them in a controlled state. This moves the development and trialing of a hypothesis further back into the process than typically applied when utilizing scientific methodology, after data has been collected and analyzed. Hence the popular instructional refrain, "Follow the data!"

While the researcher embraces many of the rigorous analytical approaches to problem-based improvement methods as well as the theoretical and applied customer alignment concepts incorporated in TQM, it is not without a sense of incompleteness. The analytics are or can be effective, but they routinely address identifying and correcting problems versus identifying and

building upon existing and past points of excellence, and as such only address one segment of the human condition, and not necessarily the more optimistic and engaging segment.

The continuous droning of problem identification and resolution can frequently drown out the less strident, but equally viable voice of observable excellence. TQM has as a foundation the positive concept of organizational alignment to customer needs and expectations, but TQM lacks process to assure this is effectively and consistently done, which leaves individual organizations the task of determining how that's done and what it should look like. Derivatives of TQM, such as Six Sigma have process steps that search for the voice of the internal and external customers in order to develop change mechanisms and improvements, but typically this is done on a project by project basis and the voice of the customer is as it relates to a specific process or organizational service or activity, often an ineffective or broken process in need of a fix.

Chapter three reviews and discusses strengths-based methods for business improvement and optimization. Contrary to problem-based methods, strengths-based methods approach improvement through the identification and building upon an organization's past and current strengths. Attention should be paid when reviewing the literature for either problem-based or strengths-based methods regarding the positives and negatives of the approach and the potential for cross-fertilization of the two fields and approaches.

Chapter Three - A Strengths-Based View of Development

Introduction

Clifton and Harter (2003) describe organizations or individuals adopting a strengths-based approach to improvement develop their abilities and capabilities by focusing and refining those things that they already do well. Strengths in this application mean the ability to perform elements of work or tasks consistently and nearly flawlessly; this means it is done with a high degree of accuracy and precision. This is usually accomplished through continuous practice and focus on the task. Organizations use a strengths-based approach in determining those critical aspects of work that must be done right time and time again and continuing to develop the skills and organizational focus to assure they are done correctly. Individuals use the same approach to refining those abilities that they value by applying greater focus, practice, and effort.

Organizations and individuals refine and develop strengths by increasing skill levels and knowledge about the task, duty, or need. Clifton has applied his research in various consulting activities and field trials and developed the hypothesis that individuals have a more pronounced and increased gain when they build on existing strengths than they would by making similar efforts to correct their weaknesses. Strengths-based organizations do not ignore their weaknesses they simply makes their improvements by building upon their existing strengths. The key to successful strengths-based development is to focus efforts to build upon strengths while you identify, understand, and manage weaknesses (Clifton & Harter, 2003).

Stavros and Hinrichs (2009) describe SOAR (Strengths, Opportunities, Aspirations, and Results) as a strengths-based framework for increasing the effectiveness and reach of strategic planning and thinking. SOAR is built upon the AI principles and 4-D methodology. A foundational aspect of SOAR is the organization's asking itself at the inception of the strategic planning session, what is it good at and what can it build upon? Once the strengths-based

foundation has been established, it helps to facilitate and assure a logical assessment of the organization's opportunities and aspirations. From the established framework of what the organization does well and can build upon, stretch goals and objectives can be derived.

Clifton and Harter (2003) put the strengths-based approach in perspective with representative quotes from individuals after their undertaking a strengths-based developmental activity:

> Identification: "When my [talent] is kicking in, I take notice of it and recognize it. Before learning about [my talent], I didn't even realize that it was [a talent]." "Knowing [my talent] gives me more confidence and hope for myself." "Where 'over analytical' was a bad thing, now it's great"
>
> Integration: "Learning about [my talent] has definitely helped me to understand the reasoning behind some of my action." "[Learning about my talent] has started a habit of self reflection." "I think about [my talent] all of the time. In certain situations I think about how I can apply it more effective."
>
> Changed Behavior: "I am using [my talents] in order to learn better. For example, one of my [talents] is 'relator'; and I have formed study groups in my classes." "My [talent] of 'command' helps me take control and initiate things in my life." "Actively using [my talent] causes further engagement that acts like a cycle, causing me to invest more of [my talent]." (p. 114)

In the review of strengths-based modalities, AI surfaces as having both process and a demonstrated applicability to addressing organizational improvement needs (Cooperrider, Sorensen, Whitney, & Yaeger, 2000). This chapter is structured to describe AI in terms of what it is, how it evolved, its applications, and its strengths and weaknesses.

What is Appreciative Inquiry (AI)?

AI is highly adaptable and configurable and a means for engaging organizations to collectively identify what they want to become. It assumes that embedded in every organization is the knowledge to make it successful, and that via the AI process, this resident and untapped knowledge can be brought to the surface, exposed, shared, and used as an integrated reservoir for fueling sustainable positive organizational change (Mohr & Watkins, 2002).

AI uses inquiry to unearth, comprehend, and generate improvement in an organization's culture, function, processes, and structure. Through AI 4-D methodology using as a basis its

five principles, organizational capacity and positive potential are developed and realized. This is achieved through collaborative inquiry into the organization's best moments. There is sharing of experiences, and the data are foundation for future generative growth and development (Calabrese et al., 2007). Fundamental to the approach of AI is the realization that there are many different ways to achieve the organization's preferred objectives. This includes individual or organization development and changes, all of which can be melded into a holistic approach that is unique, specific, and appropriate for the organization.

AI 4-D process can be used with strategic planning in the SOAR (Strengths, Opportunities, Aspirations, and Results), framework which an organization's stakeholders use their strategic planning process as an opportunity to use it as a transformational process and to reach for aspirations and results. Utilizing the same generative elements as other AI initiatives, SOAR framework applied 4-D process to move an organization toward its desired goals and objectives quickly and effectively (Stavros & Hinrichs, 2009).

As a form of action research, AI helps individuals in organizations to create new and generative self-images and to identify and actionalize the path for realizing operational attainment of the new image. This emanates from a socio-rationalist change theory, and the creation of the new organizational self-images leads to the developmental systems changes in support of the new organization. In an AI context, action research has the incremental elements should be rooted in appreciation and applicability, and they should be of a provocative nature and in all cases collaborative. Overall, the process begins with a grounded observation of what has been the organization's past best, and then innovatively collaborates regarding what might be, moving consensually to what should be and then collectively moving to what can be (Bushe, 1998).

Cooperrider et al. (2000) describes social constructionism theory as being pragmatically developed and applied to organization development via the path of AI. The five principles of AI are foundational to the concept of organizations exploring their past, current state and co-creating a new shared reality – applied social construction theory.

The first principle describes constructionism as the belief or understanding that an organization's self-knowledge or institutional knowledge and awareness and the future of the organization are linked and interwoven. The second principle, simultaneity brings into play the concept that inquiry and change are not liner, and in series, processes, they are also interwoven in that the action of inquiry itself can drive change. The third principle, the anticipatory nature of AI refers to the importance of an organization's collective sense of anticipation and excitement regarding the potential for developing a better and fully realized future. The fourth poetic principle describes the human ability and need for individuals and organizations to interpret the same thing, situation, or words in a myriad of different ways with "truth" eventually being both in the eyes of the interpreter(s) and forged via the reconciliation of perspectives. The fifth principle, the positive element of AI relates to the organizational energy and sense of commitment gained through systematically looking for and building upon the positive versus keeping a more negative focus on identifying and working on problems (Cooperrider et al., (2000).

All organizations are an arbitrary social construction devoid of inherent truth or reality (Cooperrider, Sorensen, Yaeger, & Whitney, 2001). The organization exists because it is created and willed to exist, and all rules, truths, interactions, and knowledge about the organization are derivatives of this willful creation. With organizations being a socially constructed entity, organizational transformation and change are dependent only on the

imagination, dialogue, and will of its members and other stakeholders (Fitzgerald, Murrell, & Newman, 2002). Language can be looked at as merely being the vessel for conveying thought, but in the post-modernist perspective it is looked at as creating meaning and as a catalyst for change. The development of new and stimulating thoughts, images, and symbols can become a powerful means of changing organizations. AI looks for and creates new and powerful images of past and present points of organization excellence. These images along with the best intentions and desires for organizational successes and betterment are used to create a vision and self-fulfilling prophesy of the organization at its best (Bushe & Kassam, 2005).

An outgrowth of AI's positive value position is that it readily becomes a relationship building process that brings participants together in a dynamic and integrated effort to seek the best of themselves, others, and the organization as a whole (Miller, Fitzgerald, Preston, & Murrell, 2002). In the discovery step of AI, Stavros and Torres (2005) invite the participants to change the questions to change the stories to change your life and relationships. They provide a pragmatic approach to changing your intentions to identify means to change your actions, which can in turn change your relationships based on co-construction with others. It is the identification of intentions and then signaling and actioning of intentions that creates dynamic and improved relationships.

AI uses and generates hope and affirmation, and it takes apart and removes organizational assemblages of fear, distrust, and blame, replacing them with empowerment and optimism. It replaces an organizational narrative of negativity with one of positive dialogic plans for a better future. AI assumes that all organizations have a story and that as the story changes, so does the organization and vice versa. If the stories are one of distrust and gamesmanship, then that is the emanating culture, if those stories are replaced with stories of strengths, fairness, and an

optimistic look toward the future, then so goes the organizational culture (Cooperrider, Sorensen, Whitney, & Yaeger, 2000).

AI in action in an organizational context. The simple, yet complex in action, theory that AI embraces in regard to organizational dynamics is that organizations grow in the direction that attention is paid and that they are visibly measured – much like a plant growing in the direction of sunlight and growing more rapidly and healthily when exposed to the appropriate amount of sunlight (Watkins & Mohr, 2001). The act of asking questions about a specific area or issue will raise organizational awareness and increase cultural adoption and response. The issues and opportunities brought forward can have a negative focus and tend to spread a sense of pervasive depression on an organization or they can have a positive and strengths-based focus and spread a sense of vitality and optimism across the organization.

AI provides for a wide range of organizational stakeholders to begin to ask the same types of positive and affirming questions, moving the organization in the direction of query. Following a set series of linked activities fulfills organizational transformation. The widespread questioning tells participants that there is a need for change and to begin to look at the different directions for change and to become part of the change. The AI 4D methodology focuses structured interviews on instances of high performance and achievement in order to excite and speedup the transformative dialog and activities, and the ultimate integration and alignment of the organization's structures to translate shared vision into practice (Mohr & Watkins, 2002).

As an example of the challenge in application, beyond their application to a dynamic living organizational entity, is the very fact that it is assumed that the act of asking questions of an organization or group influences the group in some way, which challenges the social sciences research model that a researcher can be neutral in observation and or interviewing. AI

presupposes that an interviewer's presence in a group changes the group dynamic and the phrasing and means of asking the question also influences the group and its transformational outcomes. Also a part of humankind's sometimes odd action response structure is that most adults are reticent to introduce into dialog future hopes, dreams, and aspirations into OD for fear of being seen irresponsible by not recognizing and dealing with the myriad of problems that exist (Hall & Hammond, 2007).

AI facilitates organizational transformation grounded in the specific experiences of success already experienced by individuals currently in the organization who will be participating in designing and living the organization of the future. AI has two very distinct elements providing differentiation from other OD methods or approaches. The first is its basis in social construction theory, which looks at the process for knowledge development and transformation, believing that knowledge of an event is co-developed by the participants in the event. An example of this would be in a successful business acquisition many participants work together to assure the success and after-the-fact knowledge of the success drivers is gained via the assimilation of their many vantage points. The second is AI's movement away from mechanistic problem-based techniques and modalities. AI is the opposite of the failure driven pessimistic search for problems and their causes as it looks solely at past successes with intent to systematically re-experience them by identifying success drivers and building them into the organization's processes, culture, and identity. The focus of AI is to take what once could have been transient occurrences of success and systematize them into deliberate and routine occurrence (Donovan, Meyer, & Fitzgerald, 2006).

The Genesis of Appreciative Inquiry

AI was developed in 1985 when Case Western Reserve University had a team from its Weatherhead School of Management consulting with a hospital, The Cleveland Clinic. Although the team from Case was intending to help the hospital identify and ameliorate problems, they found when they asked positive and affirming questions, the hospital's staff engaged more readily and became more animated. The consulting team led by doctoral student David Cooperrider from Case had, in their strengths-focused queries, found a source of organizational pride and enthusiasm (Kinni, 2003). Cooperrider was surprised by the high level of innovation, cooperation, and open leadership that he encountered in areas of the hospital. So, he changed the focus of his efforts from helping the hospital identify and resolve problems to helping them identify sources of strengths and times high of success. This helped the system move back to those successes and to sustainingly institutionalize them (Mohr & Watkins, 2002).

The historical lineage and genesis of AI is depicted in Table 3.1 (Lewis, Passmore & Cantore, 2011).

Table 3.1
Genesis of AI

Kurt Lewen	Developed Action Research in the 1940s in his conceptual path for developing Social Psychology
Peter Berger, Thomas Luckman	In 1966 published Social Construction of Reality
Kenneth Gergen	In 1970s further work on Social Construction laying much of the groundwork for AI
David Cooperrider	In early1980s developed and named the process of Appreciative Inquiry

Note. From Lewis, S., Passmore, J., & Cantore, S. (2011). Appreciative Inquiry for Change Management, p. 73.

How is Appreciative Inquiry Applied?

The collective learnings based on the AI concept and its 4-D cycle form a shifting of the perception that organizational participants have of the organization to its successes and its future, along with their own personal development and growth (Mohr & Watkins, 2002). Through the

appreciative framework of AI, the participants in the AI process are enthused, encouraged, and empowered to identify, develop, and implement systems, tools, and cultural changes aimed at making the organization the best it can become (Calabrese et al, 2007).

David Cooperrider for many years resisted establishing set methods for the practice of AI because its application was situational and the field needed experimentation versus inflexible mechanical orientation. His dissertation presented five core principles. These principles are presented in Table 3.2. In 1997, Cooperrider and a group of his colleagues created the AI 4D methods which move practitioners through the phases of Discover, Dream, Design, and Destiny.

Cooperrider now more expansively describes AI as guided by five fundamental generative processes, which in turn are based on five core principles. The five core principles are in Table 3.2, *AI's Five Principles* (Watkins & Mohr, 2001).

Table 3.2

AI's Five Principles

Constructionist Principle	as we strive to understand work systems, the organization moves in the directions of the questions asked, knowledge about an organization and the destiny of that organization are interwoven
Principle of Simultaneity	change begins as soon as questions are asked, inquiry and change are not linear processes they are interwoven
Anticipatory Principle	current behavior is influenced by the future we anticipate, and the collective imagination is pivotal to the creation of the future, the organization vision of the future moves the organization forward and it is necessary to use that anticipation as momentum and means to create the future changes
Poetic Principle	much as poets have no boundaries regarding what they can write about, there are no boundaries on what can be asked about and learned from, and organizations, like a poem, can be interpreted in many different ways
Positive Principle	the more positive the questions asked and used in guiding the transformation process, the more lasting the change will be, it is much more effective

Note. From Watkins, J. M., & Mohr, B. J. (2001). *Appreciative inquiry: change at the speed of imagination*. San Francisco, Calif.: Jossey-Bass/Pfeiffer. p.39.

Consistent with the tenets of social construction theory, the basis of AI is that the language used creates the reality. Rather than using forceful and directive language of many of the problem-based organizational change methodologies, the language of AI is more optimistic

and engaging creating an open-ended inquiry seeking opportunity and best-case examples (Sutherland & Stavros, 2003). AI is a mindset and way of responding that seeks and then drives collaboratively toward significant and intended positive changes in organizations. The methodologies of problem-based isolate and dissect organizations looking for problem root cause in order to correct, but AI generates affirmative organizational self-images and gives life and energy to the organization.

The five core principles described in Table 3.2, when implemented, these become the five fundamental generative phases in Table 3.3, *AI's Core Principles* (Mohr & Watkins, 2002).

Table 3.3

AI's Core Principles

Choose the positive as the focus of inquiry	the AI process begins with the organization having consciously chosen to focus on the positive. Instrumental to a successful launch of the AI initiative is education of all stakeholders regarding the AI process, its steps, focus and objectives, and then identifying and initiating a core team to lead and facilitate the process. Important to this stage is determining and formatting the interview process
Inquire into exceptionally positive moments	in this stage, as widely spread throughout the organization as possible, collect stories about the most positive aspects of and successful times in the organization's past and present. Researchers using the more traditional methods of organizational transformation usually try to restrict the number of participants to survey, but AI practitioners try to get as much input as possible from across the organization. The participants use stories of past organizational successes, the narrative of which gives a sense of life and relatable realism to the organization. Stories are used because of their rich textual meaning not seen in other reviews of past work or occurrences
Share the stories and identify life-giving forces	in this stage those performing the interviewing share the results of the interviews across the entire organization and begin the process of sense-making . This brings as much input and perspective into the dialog as possible and those remembered instances of highest performance are looked at and discussed from many stakeholder perspectives, aiding in gaining a more complete picture of event and factors contributing it. The sense-making allows for the development of themes and or identifying and combining the threads emerging from the interviews. The identification of those organizational life-giving themes in the interviews gives meaning to the thoughts of what organizational life and accomplishment would be like if those moments of exceptional accomplishment were to become the organizational norm
Create shared images of a preferred future	the fourth phase of the AI allows the organization to dream about what it could become, foundational to this concept is the use of the knowledge that has already emerged in the interviews identifying the past points of excellence already experienced by organizational members and relayed via interview results. This requires the organization's participants to begin discussions regarding the possibilities for positive organizational transformation and what

	they each can do to enable that transformation. The discussions at this stage usually begin with how to change the culture to the desired state and then transition shortly into specific discussions regarding organizational structure and enabling mechanisms
Innovate and improvise ways to create that future	this final stage brings the organization together as a whole to identify, articulate and plan how to achieve throughout the organization, on a daily basis, those positive success and excellence generating things that have been identified in the previous stages. By this stage the excitement and expectations for positive change are very high and this wave of anticipation needs to be the driving force for positive transformation. It is also key to use an "appreciative eye" in an ongoing look at the organization in an effort to continuously improve and positively change the organization. AI transformation is not a one-time event; it is an ongoing organizational empowerment and commitment to continuously improve the organization via a relentless search for operational excellence. AI is also creative and empowering in that there is no "one way" to engage the organization, share stories, or to perform any other element of AI. AI is very situationally driven, culturally appropriate, and organizationally unique

Note. From Mohr, B. J., & Watkins, J. M. (2002). *The essentials of appreciative inquiry: a roadmap for creating positive futures*. Waltham, MA: Pegasus Communications. p. 97.

AI is variously described as either 4D phases or a 5D cycle. They are essentially the same steps with the exception of what is described as the starting point. The 4D phases begin at Discover with the predicate assumption that there preexists a chosen affirmative topic. The 5D cycle begins a step in advance of Discover at a point called Define. The gradual evolution from AI's description as 5D versus 4D was driven by the observed necessity for the development of a more effective and truly affirmative starting point, asking the right questions in the right way. The AI methodology has five phases, i.e., definition, discovery, dream, design, and destiny, as depicted in Figure 3.1, *AI 5D Cycle* (Cooperrider, Whitney, & Stavros, 2008)

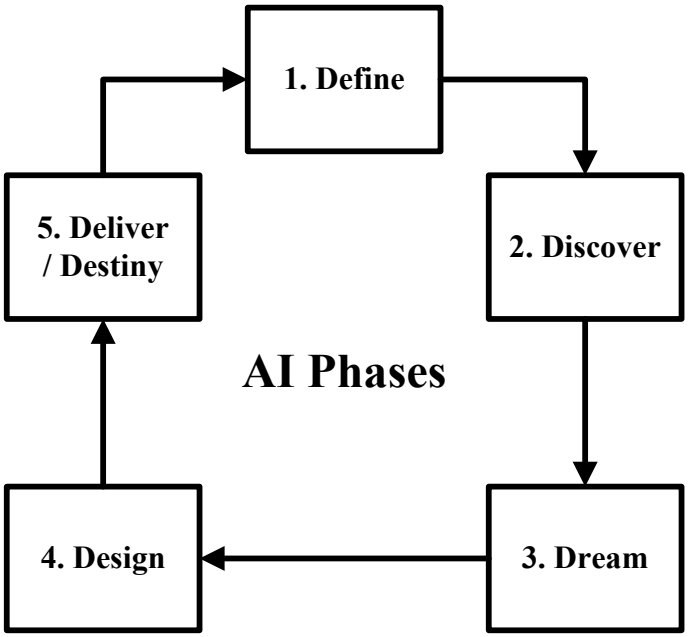

Figure 3.1. AI 5D Cycle

Note. From Cooperrider, David L., Whitney, Diana and Stavros, Jacqueline, *Appreciative Inquiry Handbook: For Leaders of Change*. Brunswick, OH: Crown Custom, 2008.

Phase one: Define. In phase one, the focus and scope of the inquiry are determined and defined. This definition stage can include who participates, what is expected to be accomplished, resources needed and available, and reframing and articulating problems into opportunities. The data and information to be dealt with in the inquiry are very important because the act of inquiry will drive the organization's perception of what is significant, and the act of inquiry itself drives action. Organizations respond to what is measured because what it measured is determined to be that what is important to the organization. Since organizational transformation begins with a query or a series of queries, it is important to ask the right questions, in the right manner.

Phase two: Discover. The second phase in the AI process, discovery, begins the interviewing of the people selected to participate. The interviewing is comprised of a series of open-ended questions aimed at getting the interviewees to describe their most positive

organizational experiences, the action of which itself is usually seen as very positive by participants. In the discovery phase the following generic questions are used to elicit responses:

- Describe a high-point experience in your organization – a time when you were most alive and engaged.
- Without being modest, what is it that you most value about yourself, your work, and your organization?
- What are the core factors that give life to your organization, without which the organization would cease to exist?
- What three wishes do you have to enhance the health and vitality of your organization? (Cooperrider et al., 2008)

The framework of the questions is intended to bring out the interviewee's perspectives and to put these perspectives in story or narrative form versus stating them as irresolute facts. Interviewees and interviewers find these stories of past organizational successes and accomplishments engaging and uplifting. In addition to the positive feelings elicited, a sense of empowerment and increased understanding are generated between participants who begin to understand that the power of and for profound organizational change is within their dialog with others.

Once the stories are collected, they are grouped for common themes to be shared in the dream phase. The themes are assessed and the most significant learning and ideas identified. These themes and the thematic groupings are then shared with all participants and other organizational members. Once the themes are determined, tailored interviews using selected primary themes are created to be used with a wider organizational span, interviewing as many people as possible in order to gain the widest and most comprehensive organization perspective as possible.

Phase three: Dream. In the dream phase, the AI participants use the information gained in the discovery phase to develop and articulate the vision of their ideal future state. One means of facilitating this phase is to ask the group, if they woke up in the future and saw that the organization had reached its desired future state to describe in relative detail how that future state operates, thus making the image of their future state more real and tangible to them. Participants share in small groups and later in the large group, their vision of what can be and how it would look and work (Acosta & Douthwaite, 2005). This phase uses various visualization tools and creative exercises encouraging participants to think as broadly and holistically as possible about OD and transformation opportunities (Coghlan, Preskill, & Catsambas, 2003).

Phase four: Design. The design phase begins the work of laying out the path and steps needed to be undertaken to realize the dream. This phase has detailed and sequential steps moving the organization from the dream of its desired state to attaining it. At this point, participants are asked to develop provocative propositions aimed at defining exactly what needs to happen to achieve the future state vision. These provocative positions include these framing considerations:

- Vision and purpose
- Strategy
- Structure
- Leadership
- Decision making process
- Communication
- Systems

- Roles and relationships
- Knowledge management
- Policies and procedures
- Products and services (Cooperrider et al., 2008)

Phase five: Deliver/Destiny. The last phase of the AI process is destiny, or fulfillment of the future state dream. AI practitioners believe that this stage of implementation of the dreams attainment steps is best handled by dedicated implementation teams. In doing so, they follow the prescribed implementation steps, but they also continue to use the AI process to elicit more information and to reaffirm as they go. The continued and present use of AI, post initial activities provides the confirmation that the AI process has take root in the organization (Cooperrider et al. 2008)

The phases in the AI process can be further described as following this path:

- Establish context by introducing AI in theory and in practice. At a minimum, conduct a two-hour introduction to AI
- Define the contract clarifying the purpose of the effort
- Select and train the core team utilizing a highly diverse group of people from across the organization
- Select the topics and develop the interview guide inclusive of selecting inquiry topics, crafting questions, and developing the interview guide
- Begin the discovery phase conducting as many interviews as possible
- Reflect on the stories conducting interview reflection and storytelling sessions to share highlights and success stores

- Report the results preparing and distributing reports highlighting themes, quotations, and stories
- Dream about the possibilities conducting dream meetings to enhance the collective sense of what is possible
- Design the future conducting design dialogues and crafting provocative propositions related to the purpose of the effort
- Plan and implement in the delivery phase establishing personal and organizational commitments and developing application plans to realize the provocative propositions (Whitney & Schau, 1998)

Challenges and Critiques Applied to Appreciative Inquiry (AI)

Donovan, Meyer, and Fitzgerald (2006) describe AI as a widely recognized approach to OD attracting its share of criticism. One of the myths is that AI is warm and fuzzy and has no basis in producing hard or transformative change and data. This is incorrect in that AI is qualitative and as such developed and uses a different type of data than does the more quantitative fields or approaches. AI is also termed a timid philosophy in that it is perceived to hide behind the affirmative and cowers from approaching real embedded and difficult organizational issues. AI differs from merely being "positive thinking" in that real experiences are collected and used to fuel and form the basis for change, versus merely approaching issues in a positive light. AI is also perceived as being hugely imbalanced in that it only looks at and uses the positive and that the problem-based OD approaches look at all factors.

AI refutes the concern of balance by three countering contentions. The first is that although many other OD applications also look for positive elements, they usually don't delve deeply into what caused the positive elements and don't then seek effectively to build upon the

positive. The second contention is the rationale for balance relates to the use of the normal bell curve. This assumption may fuel the unconscious construction of a purposefully normative organization versus one designed to seek the higher end of the curve's excellence in result. The third countering contention is AI is grounded in three types of qualitative sampling, i.e., a search for the extreme or exceptional, a dedication to maximizing the diversity of positive exceptions discovered in the inquiry, and an opportunistic delight in taking advantage of the exceptional (Fitzgerald, Murrell, & Newman, 2002).

Critics of AI frequently default to the question, "What do we do with the real problems?" This is answered by pointing back to the constructionist principles and the basic tenets of AI. It is shown to address the problems through the co-creation of better organizational futures via the constructionist principle, the principle of simultaneity, the poetic principle, the anticipatory principle, and the positive principle, unlocking what would otherwise become a dialog of circular logic. The presence and use of these principles assures the resolution of real problems but not through a concentration on the negative. It is through a concentration on the positive and what has made it possible, affording opportunity to make that the normative experience (Cooperrider, et al., 2000).

Much has been discussed about the positivity of AI being key to its success, but a study conducted by Gervase Bushe, at Simon Fraser University, demonstrated that that AI participants rating both pre and post their AI intervention of their positive feelings about AI showed it was not correlated to their belief that AI's benefits were derived via its transformative capacity. They strongly believed the transformative elements far outweighed the positive feeling they got from the AI process in generating true organizational improvement (Bushe, 2005).

Most organizations have worked hard to developing an effective problem-based culture, and AI flies in the face of problem focus. Therefore, critics don't accept that AI would be other than difficult and ineffective to institute – falling back to the question, "What do we do about the real problems?" again, addressed through discussing social constructionism and the tenets of AI. AI does require a change of mindset that there are more effective alternatives out there. The AI cases studies show the capacities of the AI approach (Mohr, Smith, & Watkins, 2003). It is argued that if reflexive practices are absent from AI processes then the interpretation of AI being exclusively focused on the positive will potentially increase the belief that there are negative behavioral impacts as a result of oppressing negative inputs in the search for the positives in an organization. Reflection must include evaluating the repressed negative inputs and can then promote transformative learning and change with the restatement of negative to its positive corollary (Donovan, Meyer, & Fitzgerald, 2006).

Some believe that AI is so successful in organizational transformation that it is independent of the issues and concerns that face other and more traditional forms of OD. But AI, as with other forms of OD, faces inter-group politics, conflicts, and competing agendas to be managed. Although AI helps inherently to resolve many issues with its focus on the positive, it is its generative capacity that is so uniquely positive and success achieving. AI, as does other forms of OD, needs competent and attentive group facilitation skills, specifically trained in understanding AI 4D or 5D methodologies. Positive seeking and centering elements of AI do not make it stand alone successful, if anything, it makes it more essential to adhere to the appreciative process. Lacking common desires and collective objectives, AI becomes less than the generative and transformative process it is when common themes are identified and worked toward resolution. AI processes generate collective agreement relative to the organizationally

desired end state and developed structure and energy to coalesce group-think and action to achieve end state (Bushe, 2007).

As the use of AI becomes more common, we should be concerned that two things could potentially occur that would dilute its impact and image and as effective OD methodology. The first is that any inquiry approached from an appreciative perspective could become labeled Appreciative Inquiry, when AI, out of necessity should follow a methodological path that encompasses the tenets and steps of AI, i.e., definition, discovery, dream, design, and destiny. The second is the potential that practitioners and graduate students can develop such a fascination with and commitment to appreciation that they will incorporate it into their practice and research without the foundational understanding of its unique benefits, principles, and appropriate application (Bushe & Kassam, 2005).

Proponents of AI claim that it generates new knowledge and transformational change. The AI case studies support these claims and the data provided demonstrates these challenges as being primarily ones of challenging AI's core benefits without data in hand to do so, providing more of a philosophical and conceptual countering without directly challenging the logic and data provided via case study conduct and analysis (Bushe & Kassam, 2005).

AI Applications

AI has had great exposure in a diverse span of industries and business segments since 1997. From its formative development by David Cooperrider at The Cleveland Clinic, in which Cooperrider saw first-hand the engaging and generative response from the organization's members as he asked positive and affirming questions versus using a deficits based approach, to trucking businesses and beverage producers. The results have been the same, people respond

more favorably to positive inquiry (Watkins, Mohr, & Kelly, 2011). The following case studies demonstrate a selection of the vast range and depth of successful AI interventions.

Developing needed business controls. The Green Mountain Coffee Roasters (GMCR), a company based in Waterbury, Vermont, experienced significant growth, doubling plant size and tripling its plant size prior to implementing AI. Its CEO, Bob Stiller had founded the company as a coffee shop in 1981, and by the late 1990s it had grown into a $100 million business with Stiller realizing that with expansive growth came staggering costs needing reduction and control.

Stiller set an aggressive operational improvement goal: the reduction of $.25 per pound of coffee, which was a reduction in gross costs of approximately seven percent. His method of approaching this cost improvement was through AI because he wanted to use a strengths-based approach that focused on the company's best practices and strengths. GMCR used the AI summit, but approached the company's primary business processes as discrete AI summits, i.e., procure to pay, order to cash, plan to produce, and market to sell.

Over 200 employees which was one half of the workforce participated in the AI summits using the "4D" AI process of: 1) discover the best of what is and has been, 2) dream what might be, 3) design what should be, and 4) create a destiny. Accentuating the positive, GMCR saw the basics tenets of AI yield productive results. Specific process improvements made through the AI summits included reducing buying costs by using purchase orders for all buying activities and optimizing the order entry and delivery systems, reducing revenue receipt times (Whitney & Torsten-Bloom, 2003).

AI and its ongoing success for GMCR is seen as being instrumental to the company's significant economic and social achievements (Cooperrider, Whitney, & Stavros, 2008).

Helping an established business reduce waste. Roadway Express at its trucking terminal in Akron, Ohio, used an AI pilot project in which they wanted to use employee involvement in order to reduce waste. Through the participation of one-half of the workforce, they developed eight self-organized teams on various topics. One team created savings of $10,000 per month in driver delay reduction and more than $70,000 per year in other generated savings. As of 2008, Roadway Express has sustained their initiative and roughly nine years after their first AI intervention the company has conducted over 60 AI interventions involving over 10,000 employees and saving over $300 million dollars in its integration with its buying company Yellow Trucking (Cooperrider, et al., 2008).

Increasing revenues when facing dramatically increased competition. A manufacturer of window accessories, Hunter Douglas's Window Fashions Division, used AI to apply its business excellence program, Focus on Excellence, and saved $3.5 million in its first year of application (Whitney & Schau, 1998). Ten years after the first Hunter Douglas AI intervention, the company produced six different product offerings versus the one it started with. It increased revenues by 40% with only a 13% increase in headcount and employee surveys indicate satisfaction with and excitement about all aspects of the company (Cooperrider, et al., 2008).

AI meets the challenge of improving casino revenues. Cooperrider and Whitney (2005) described that John Cwiklik, general manager of the Santa Ana Star Casino, in Bernalillo, New Mexico, had seen his casino slip from first place revenues in the region to fourth place due to increased competition. Cwiklik determined that the casino's customer service was very poor in that the employees would not engage with customers, and the employees had determined that management did not care about them.

Cwiklik used AI with his entire 820 member staff with a focus on improving customer service. The casino in 2002 had to reduce employee headcount by 250 people. Cwiklik used the AI-4D methodology in doing so by giving the released permanent employees generous severance packages and releasing them on a volunteer basis. Saving the business was the stated reason for the reduction.

In 2003, AI was used by the casino to improve profitability on table games and slot machines, the employees were asked how the casino could become a new hometown casino. The results were a $10 million dollar profit in 2003 and moving into the third place in regional casino revenues (Cooperrider & Whitney, 2005).

Facilitating international alliances between dissimilarly scoped businesses. In 1998 in Jalna, Maharashtra, India, AI was used to facilitate the alliance between MAHYCO, a family business located in India, with Monsanto, the U.S. headquartered biotech and chemicals giant. The two companies' cultures could not have been more different and regardless of the best intentions of both companies, difficulties in forming the alliance loomed. AI was selected as the alliance forming methodology after a trial evaluation between AI and Management Education (ME) was conducted. Management education was described as gathering management representative of both companies and instructing them on the products, operations, and values of both companies and why and how they were to work in support of each other (Donovan, Meyer, & Fitzgerald, 2006).

The results of the evaluation between AI and ME were that AI participants reported experiencing much higher rates and levels of relationships and collaboration, along with follow through on project development. The primary outcome of the AI session was improved

collaboration, the intent of the two company alliance (Miller, Fitzgerald, Preston, & Murrell, 2002).

Providing a solution to a nursing shortage crisis. In 2000, Kathleen Davis, VP Hospital Operations and Nursing, at Lovelace Health Systems in Albuquerque, New Mexico, needed a new solution to the nursing crisis hitting her and other hospitals. Nursing was becoming a threatened profession in that there was lack of sufficient staffing, shorter hospital stays, higher patient acuity, increased regulatory oversight, and a corresponding increase in paperwork. An AI intervention was conducted with 300 of the hospital's nurses to determine why they stay with the hospital, and it was shown that the nurses responded in a very engaged manner to the affirmative and appreciative nature of the questions. A great deal of the discussion centered on the life-cycle of career nursing, from entry point to advanced knowledge and mentoring those new to the profession. The enthusiasm and engagement of the nurses quickly led to their designing positive means for attracting, developing and retaining nurses, and their participation and buy-into the process increased as they went further into all that would contribute to nursing life-cycle. The Lovelace AI discussion topics included:

- Reduction in nurse turnover 13%
- Vacancy rate reduced by 30%
- Hospital nurse rating of Lovelace as a place to work increased 16%
- Patient satisfaction with nursing (as measured by Press Ganey survey) rose 20%

These goals and progress against them showed the pride nurses have in their profession and how, when they are engaged in an appreciative path for improvement, they take personal responsibility for improving their workplace and their carriers and job satisfaction (Wood, 2004).

Addressing changes in governmental procurement and contracting. A Brazilian manufacturer of healthy foods, Nutrimental Foods, had suffered major financial setbacks because of a governmental procurement change with moved to decentralized procurement. The government was its sole customer and as they rapidly lost potential contracts. Nutrimental Foods went from 2,000 employees down to 650 employees in order to remain solvent. The 650 remaining workers were fearful of losing their jobs and became increasingly less productive. This had an additional, compounding negative impact on the company's operations.

Nutrimental Foods turned to AI to help change the employees' perceptions of the company and in turn their own futures, gaining a competitive edge in new markets they were entering. The exposed need of the company was to develop a breakthrough organization rather than look for breakthrough products with the understanding that would give the company its strongest competitive advantage. The process began with an AI summit of over 750 of the key stakeholders (e.g., employees, suppliers and customers) during which best practices and past and present points of operational excellence were discussed in storytelling form, sharing feelings and expectations and conceiving of and implementing their desired future.

Within the next four years, Nutrimental Foods achieved the following results through their sustained AI process:

- 66% increase in sales revenue
- 422% increase in profitability
- 42% improvement in productivity
- 91% of employees were happy
- 95% like their work
- Nutrimental Foods was recognized as one of *Brazil's 100 Best Companies to Work For*

The leaders of Nutrimental Foods attributed the turnaround to their integrated measures to identify and emphasize means of bettering people, environment, and profit (Coghlan, Preskill, & Catsambas, 2003).

Eliminating the glass ceiling impacting the advancement of women. Marge Schiller and Associates, at the Avon Corporation in Mexico, conducted a very significant AI intervention. It was aimed at facilitating the elimination of the perceived glass ceiling barring women from attaining high leadership positions in the corporation. It was an initiative fully supported by corporate leadership. This initiative was not intended to overtly advance female over males, it was an initiative of equity to find a path forward assuring organizational parity and opportunities for women and men in shared leadership contexts.

At the onset, 100 people were trained in interviewing, and over the next several weeks conducted over 300 interviews throughout the corporation. At the conclusion of each interview, the interviewer asked if the interviewee could help in doing some interviews. As a result, there were a tremendous number of enthusiastically conducted interviews and literally hundreds of stories telling of instances of managerial excellence and best-case operational practices were received. The next stage of the process included a large-scale meeting in which the stories were shared and the work of developing provocative statements as visionary propositions began. Approximately 30 of these visionary propositions were developed, and they formed the basis for systems changes and behaviors that were profound. As an objective indicator of the success of this program, Avon Mexico was give the Catalyst Award as the best place in Mexico for women to work (Cooperrider, et al., 2000).

Significant changes impacting the telecom industry. Perhaps one of the most significant documented stories of AI intervention was that conducted at GTE Telops by David

Cooperrider and Diana Whitney. During the mid-1990s, GTE was undergoing massive change as was the rest of the telecom industry. GTE was faced with significant regulatory changes, acquisitions, reorganization, and consolidation, and all employees were impacted by change. Over 90% of GTE's customer interface was with hourly GTE employees and through surveys, management had determined that the hourly workforce was the least prepared for change and the least ready to positively participate in change (Cooperrider, et al., 2000).

The GTE leaders understood that the only way they would be able to handle the upcoming changes and remain competitive was with a fully engaged workforce. In the annual leadership conference, AI was introduced to the leaders. Through surveys, it was determined that the AI sessions were the most highly rated sessions of the conference. Concerned with the hourly employee results from the employee opinion survey, management determined that an urgent intervention to re-engage, align, and enthuse hourly employees was needed and AI was selected as the path. An invitation for all employees to participate in a positive revolution was issued, with a telling question emerging of: "How can we engage the positive potential of all 64,000 employees of the corporation?"

It was determined that the best way to introduce AI was to introduce it to hourly employees as a process that they could use, as they believed warranted, to help them become more effective, thus was birthed "The Positive Change Network." Tom White, president of GTE Telops was asked what he wanted to accomplish with the initiative, he responded that he wanted all employees to become company Zealots. The front line employees participating in the AI training were asked what being a company Zealot meant to them, and they responded near the end of the training with a Zealot's Oath that they asked the entire management team participating in the training wrap-up to recite (Cooperrider, et al., 2000). As the GTE initiative progressed,

the AI practitioners saw the momentum for and expectancy of change increasing. This increase was the result of the abandoning of traditional ideas of the delivery of change in favor of the more all-inclusive approach of AI. This resulted in the giving away of the AI concepts to anyone in the organization who was interested in it versus seen as the sole purview of a group of AI facilitators, trainers and practitioners (Cooperrider, et al., 2008).

At the conclusion of the session, Tom White asked for questions, and one participant quietly asked Tom and the other senior leaders present if they were ready for the positive revolution that had just started. The participant further stated that they want to do well, want to learn from the best practices of others, and want the company to be the easiest and best customer interface in the telecom business.

Thousands of people throughout GTE were introduced to AI. In a short time, there were over 400 interviews conducted by over 100 Zealots, and the lessons-learned were supported by an Intranet site for stories. The topics included Quality, Teaming, Ownership, Inspirational Leadership, and Fun at Work. Through storytelling, the culture at GTE was changing – in the desired positive manner. The effort to change the culture at GTA via a narrative rich culture took the goal of assuring a positive to negative story ratio of 5:1, five positive stories for every negative story.

After the introduction of AI, the first two years were years of very positive achievement and the embedding of AI into the culture of GTE. Front-line employee focus remained. There was increased use of AI at all levels and functions within the company. Success was infectious, and the process results were shown in GTE being awarded the ASTD Culture Change Award. Then, an unanticipated change stirred. It was in the form of the company's two largest unions, the Communication Workers of America (CWA) and the International Brotherhood of Electrical

Workers (IBEW) had become curious about the culture change initiatives, and primarily of the Zealots program (Cooperrider, et al., 2000).

One participant of the GTE transformation said of AI, "When I was interviewed I was asked to describe my wildest dream, and I described a workplace where everyone could be involved in designing the organization's future. And then, a few days later when I thought about the Appreciative Inquiry process, I realized I was living my wildest dream" (Bushe, 2007).

Improvements to a long term care facility. Since 1990 Tenderacre has become Michigan's large provider of long-term care, having more than 3,400 employees and 39 health centers. In an effort to gain consistency across the organization Tendercare initiated a +1 Consensus Development Campaign. This campaign aimed at 1) educating the entire staff on the importance of expanding occupancy and how that helps the staff; 2) educating the staff on how they can help with the consensus development; 3) establishing the enterprise consensus goal; and 4) engaging all employees in the task. AI helped Tendercare establish an effective operation building upon its core values of client care. Through AI and the resulting dialog among all stakeholders, the relationships between clients and staff, clients and family, staff and family, and staff and community were improved. Tendercare staff was able to determine and articulate the desired relationships between staff and clients and then to develop action plans and activities that institutionalized and sustained the relationships. The staff developed and disseminated a Resident Loyalty Possibility Statement that facilitated their improved staff to client interactions and interdependencies (Cooperrider, et al, 2008).

Perceived Benefits of AI

It has been shown that AI opens the field of opportunities by removing old meaning perspectives and opening participants and organizations to new and better ways of operating. AI

has created and embedded new levels and depths of organizational thinking as organizations create new patterns and paradigms that emerge from AI activities. This has provided increased potential for sustained organizational change (Donovan, Meyer, & Fitzgerald, 2006).

An analysis performed in 2005 by Bushe and Kassam helped to identify and determine the extent of lasting organizational transformation attributed from AI yielded the following perspective:

> The idea of changing how people think lurks implicitly in the normative change model, which is a foundation of the OD field, but usually the focus in application of that theory is on changing group norms and accepted behaviors… The forms of engagement that have evolved in AI practice may not, in the end, turn out to be the best way to engage collective ideation, but these research cases demonstrate that doing so appears to be central to transformational change. (p. 37)

AI exhibits a dimension that many OD approaches do not, and that is providing for and tacitly driving the formation of new relationships amongst its participants. These new relationships for bonds of trust and seeing the organization through a new lens of the lens of colleagues operating interdependently with and amongst each other further help in the development of new processes and relationships for the organization (Wood, 2004).

Perhaps the key to AI's effectiveness and means of engaging its participants is in its generative capacity. Research has demonstrated that people experiencing positive feelings are more flexible, innovative, and open to new ideas and concepts (Bushe, 2007). Bushe describes that it has been demonstrated through research that the ratio of positive to negative thoughts and statements has a direct correlation to the quality of relationships, cohesion, and decision-making. He furthers states that intent plays a role in AI in that through centering on the positive, the centering is on what the participant wants more of and is willing to engage and put effort into attaining. An additional positive aspect of AI that provides momentum to the generative process

is in hope, hope shows a common desire and provides voice to an optimistic belief in a better future.

Foundationally, AI provides three separate but very interrelated generative acts, i.e., centering possibilities and appreciation, providing for the simultaneity of inquiry and intervention, and the act of questioning and listening forming relations and realities. In regard to centering possibilities and appreciation, the act of looking at the possible and at what is good, opens a path for new creation versus analyzing the deficits of frozen or fixed systems. The simultaneity of inquiry and intervention speaks to the fact that the act of inquiring begins the process of change in the direction of inquiry and if done in a manner inviting of input that act of intervention evolves to one of transformation. The act of questioning in regard to the best the organization and its member have experienced is one that forms relationships of people and of interrelated processes and is formative and essential in creating new relational opportunities (Hoskin & McNamee, 2007).

The principles of AI have a tendency to create collaboration instead of competition amongst participants. Outwardly the direction of business optimization, even via AI, might well be competitively driven, but amongst the organization's own, there is forged a new sense of oneness and the breaking down of barriers and silos. Collaboration internal to an organization is essential but frequently takes a backseat to gaining competitive advantage (Sutherland & Stavros, 2003).

When AI is used in the practice of evaluation it has the potential to contribute in situations that might otherwise make evaluation very difficult if not prohibitively so. Coghlan, Preskill, and Catsamba (2003) in Table 3.4 describe the uses of AI applicable to evaluation, for which other methods could prove much less effective.

Table 3.4

Unique AI Applications

Contexts	Previous evaluation efforts have failed
	There is a fear or skepticism about evaluation
	Varied groups of stakeholders know little about each other or the program being evaluated
	Hostile or volatile environments exist
	Change needs to be accelerated
	Dialog is critical to moving the organization forward
	Relationships among individuals and groups have deteriorated and there is a sense of hopelessness
	There is a desire to build evaluation capacity – to help others learn from evaluation practice
	There is a desire to build a community of practice
	It is important to increase support for evaluation and possibly the program being evaluated
Processes	To guide the evaluation's design, development, and implementation as an overarching philosophy and framework
	To develop specific data collection methodologies

Note. From Coghlan, A. T., Preskill, H., & Catsambas, T. T. (2003). An Overview of Appreciative Inquiry in Evaluation. *New Directions for Evaluation*. p. 100.

From using AI processes in a diverse setting, it was determined that the principles and process of AI were extremely important in giving the previously marginalized voice in defining themselves and determining equity and balance. Three elements of diversity planning and AI showed a high workable correlation. The first was people want to be known, but some have been forever marginalized by louder more dominant voices. These marginalized people need to find their story and to be able to confidently express it. The second was people want to name themselves, and each of us wants to define our relationships with others versus having them defined for us by others. The third was pausing for reflection is critical to noticing and transformative learning. Reflections are a supplemental action essential to ignite the possibilities of what might otherwise be fleeting moments lost in the frenzy of life, organizational or personal (Wasserman, 2005).

David Shaked (2009) Managing Director at Almond Insights, and a practicing Lean Six Sigma Master Black Belt and AI practitioner, uses his evaluation of processes as a Value Walk in that he and his clients look for the best in each process and how to make these "bests" the norm, versus looking at processes from the negative and trying to find resolutions to problems. From this approach he routinely sees an energized engagement on the part of his client's employees, instead of their being concerned that he is there to eliminate waste and in doing so, possibly themselves (Shaked, 2008).

The appreciative interviews provide benefit through opportunity to demonstrate that the initiative truly is about the positive. An AI interviewer builds upon the positive versus a negative inquiry, where AI is cloaked in looking for the individual and organizational good and instances of excellence. The appreciative interviews fulfill five important actions, first in setting a positive and energizing tone; second in valuing the participants; third in creating personal connections, fourth in reducing differences, and fifth by reducing anxiety

This positive focus itself provides a number of benefits, which include some of the following:

- Motivation for change through pride in the organization's past achievements
- New paths for change
- Confidence in the outcomes
- Positive emotions (Faure, 2007)

Another benefit of AI is its unique opportunity to help organizations resolve paradoxical dilemmas. For the most part, managers and others in organizations find ways to work around paradoxical dilemmas, but even in doing so there is a lingering sense that the organization is not internally aligned and no one really cares enough about the various practitioners to understand and resolve their angst generating prioritization dichotomies. AI can help with building the

teams, setting objectives and goals, and resolving issues through finding the better way, better ways that previously existed either completely, in part, or newly assembled parts (Bushe, 2007). In addition to the organizations using AI to see benefits from the positive and appreciative aspects of AI, the most significant benefits seem to be derived from its generative nature. It is a more engaging and uplifting process than that of focusing on problems, AI generates an incremental building process of taking stories of past success and adding them together in a thread of common thought and insights that builds as a result a solution that's greater than the sum of its previously unearthed parts.

In his 1978 paper, "Toward Generative Theory" Ken Gergen stated that social science's biggest contribution would be giving us new ways to think about social structures and organizations leading to developing new options for action. AI is generative in that it facilitates the search for past successes, new ideas, and solutions that take us beyond problem-based and into the creation of new ways of looking at information, new ways of acquiring information and new vistas for organizational and personal growth and development. At its best, AI instigates self-driven individual and organizational movement to a more desirable future state. An organization's social construction can be positively and lastingly altered by AI intervention (Bushe, 2007).

How Does Problem-Based (TQM) Differ from Strengths-Based (AI)?

Many organization change initiatives push people into change, but AI is said to invite people to participate in change, the sort of organizational change building the organization they desire to work in. Few initiatives could be so compelling. First are the positive aspects of true change for organizational betterment, and second is the opportunity to co-architect the direction and methodology of change. The AI process for change is a co-collaboration in design and

implementation based on the past observations of success from the participants. This works to take past and current knowledge of the best times of the organization and weave that into future systems, processes, beliefs, and business strategies. Learning, expression, and change are at the base of AI, as well as a boundaryless organizational commitment for participative engagement in the fact finding and restructuring (Mohr & Watkins, 2002). AI can take problem-based inquiry and reframe it in a positive and uplifting context such that the change in the inquiries direction can achieve dramatically different and more positive sustainable results (Calabrese et al., 2007). A means of describing the difference between problem-based TQM and strengths-based AI is to compare the two in tabular form describing the distinct features of each adapted from Avital (2005) in Table 3.5.

Table 3.5

Problem-Based and Its Differences from Strengths-Based

	Total Quality Management (Problem-Based)	**Appreciative Inquiry (Strengths-Based)**
Orientation	Deficit thinking	Appreciative thinking
Method Archetype	Problem-based	Generative inquiry
Drive	Gap closing	Gap opening
Focus	What is wrong	What is best
Tactical objective	Meet objectives, prevent failure, fix problems	Enable success
Actors	Varied, usually isolated entities	Whole systems
Guiding paradigm	Mostly deterministic	Voluntaristic

Note. From Avital, M. (2005). Innovation in Information Systems Education: Accelerated Systems Analysis and Design with Appreciative Inquiry - An Action Learning Approach. *Communications for the Association for Information Systems*, *15*, 289-314., p. 301.

Problem-based starts with a problem or a puzzle and a perceived opportunity for improvement through solving the puzzle, as depicted in Table 3.5, *Problem-Based and Its Differences from Strengths-Based*. Problem-based necessitates defining the problem space, which is the problem's constraints and boundaries, and then seeking alternative solution to the

problem and ultimately selecting the optimum solution. The objective of the problem solving activity is to determine what is wrong, and in an isolated environment of meeting the tactical objective of solving and preventing the problem from recurring works on a small section of a system using only those impacted by the problem.

Strengths-based begins with the identification and appreciation of what has worked best and the initial locus of inquiry is reflective and appreciative. The AI phases as an example utilizes generative whole system thinking and branches well beyond an issue or problem occurrence to engage a broader base of input to determine what can be and moves to making that the norm. The tactical focus with AI is one of enabling success. This process is said to be grounded by aptitudes and lifted with and by positive effect, and then a search for an array of possibilities of which the most desired is picked and actioned (Bentkowski & Yamaga, 2008).

Table 3.6

The Sequential Steps in Problem-Based (TQM) and Strengths-Based (AI)

For problem-based (TQM) the steps in sequence are:	For strengths-based (AI) the steps in sequence are:
1) Identify the problem 2) Study the causes of the problem 3) Consider possible solutions 4) Develop a plan to solve the problem	1) Finding the best of what exists 2) Projecting what might be 3) Determining what could be
Basic Assumption: An organization is a problem to be solved	Basic Assumption: An organization is a mystery to be embraced

Note. From Hall, J., & Hammond, S. (2007). What is Appreciative Inquiry? *Thin Book Publishing Co.* Retrieved June 1, 2010, from http://www.thinbook.com/docs/doc-whatisai.pdf, p. 12.

As depicted in Table 3.6 the sequential steps in problem-based and AI being at such different locus, it is not difficult to expect different outcomes from the processes in terms of both participant psychology and results (Hall & Hammond, 2007). A further explanation of the differences between problem-based (TQM) and strengths-based (AI) is described in Table 3.7.

Table 3.7

Problem-Based (TQM) and Strengths-Based (AI) Process Fundamentals

Problem-based (TQM)	Strengths-based (AI)
Define the problem Fix what's broken Focus on decay ***What problems are you having?***	Search for solutions that already exist Amplify what is working Focus on life giving forces ***What is working well around here***?

Note. From Hall, J., & Hammond, S. (2007). What is Appreciative Inquiry? *Thin Book Publishing Co.* Retrieved June 1, 2010, from http://www.thinbook.com/docs/doc-whatisai.pdf, p. 14.

Humans possess an innate capacity for problem solving and much of human advancement has been accomplished through various applications of problem solving. Humans are trained from an early age in the scientific method of problem solving and their progress in school is largely geared by and assessed via their problem solving ability. Traditional problem-based methods entail the process of: identify the problem, analyze and generate solutions, and apply a prescription. Problem solving is limited however in that it has no generative capacity and does not take into consideration that knowledge is socially constructed, as depicted in Table 3.7 (Hall & Hammond, 2007). Strengths-based methods normally are narrative-based and ask for examples of excellence and then work to make excellence the norm (Watkins, et al., 2011). While humans construct knowledge around worthwhile pursuits and the recognition of multiple values, this process is not necessarily analytical (Calabrese et al., 2007).

Ken Gergen (2008) sees in social construction a challenge to the concept that knowledge and meaning represent truths. Gergen sees knowledge and meaning as transient interpretations of events, objects, and relationships in that they represent attributed meanings and learnings. Humans assign meaning in order to understand, categorize, and respond to their environment. The accumulated knowledge and learning resident in the individual's mind is only one source of meaning, and in probability not the primary source of meaning. Although the meanings resident in an individual's mind represent truth to the individual, it is the meaning attributed to events and actions through the collective thought and understanding of many

individuals that provides the greatest, most widely understood and accepted level of meaning and capacity for action. Gergen describes the significance of this relational movement from the meaning to one to the meaning to many as:

> The most promising way to escape the circle (hermeneutic circle) is the abandon the construction of the "an inner world" where meaning is created. Let us not focus on the meaning within the head, but the way meaning is created in relationship. We move from the within to the between.

The move from individual knowledge and meaning to that of collective thought and attributed meaning allows for meaning to become relational in that meaning for one begins to be mediated by meaning "to the one" shifting in relationship to the meaning "to the many" (Gergen & Gergen, 2008).

Chapter Four - Methodology

Type of Design

The study design was a mixed methods approach utilizing primarily qualitative methods augmented through the use of quantitative methods. Quantitative methods have long been utilized in academic research, and qualitative methods have become increasingly utilized in social sciences research which frequently uses interviews and surveys to elicit open-ended responses that need a rigorously applied sense-making process such as thematic analysis (Boyatzis, 1998).

Quantitative research methods are traditionally used to determine the relationship between an independent variable and a dependent or outcome variable within a specific population. Quantitative research can be designed either as descriptive or experimental. Descriptive studies establish correlation between variables, and experimental studies establish causality. Samples for descriptive studies require many samples, but, frequently, dependent on study design. Experimental studies require many fewer samples because randomness in the experimental design can reduce the potential for bias resulting from low sample size (Hopkins, 2008).

Mason (2010) describes the appropriate sample size for social sciences qualitative research as ranging between 20 – 50 participants.

> Samples for qualitative studies are generally much smaller than those used in quantitative studies. There is a point of diminishing return to a qualitative sample—as the study goes on more data does not necessarily lead to more information. This is because one occurrence of a piece of data, or a code, is all that is necessary to ensure that it becomes part of the analysis framework. Frequencies are rarely important in qualitative research, as one occurrence of the data is potentially as useful as many in understanding the process behind a topic. This is because qualitative research is concerned with meaning and not making generalized hypothesis statements Finally, because qualitative research is very labor intensive, analyzing a large sample can be time consuming and often simply impractical.
>
> While there are other factors that affect sample size in qualitative studies, researchers generally use saturation as a guiding principle during their data collection.

> As a result of the numerous factors that can determine sample sizes in qualitative studies, many researchers shy away from suggesting what constitutes a sufficient sample size. (p. 11)

The survey was developed and administered using SurveyMonkey. The research design mechanism utilized internet surveys sent to pre-identified field specific subject matter experts SMEs). The survey utilized both open-ended questions facilitating and requiring qualitative input and close-ended questions requiring quantitative and/or choice selection responses.

The open-ended qualitative responses were categorized and coded using thematic analysis and associated sense-making analysis. The close-ended questions were either summarized or subjected to descriptive statistical analysis, and all data were summarized and interpreted. The advanced text analysis tools included in the SurveyMonkey, Gold Version/level aided in the analysis of both the qualitative and quantitative elements of the analysis. Following the analytical stages of the study, the researcher utilized the data and findings to develop a proposed path for the integration of problem-based and strengths-based improvement methods, and then introduced the methodologies' proposed integration path to additional SME review and input.

Research Questions

How is it possible to design and deploy an organizational transformation methodology that integrates problem-based business improvement methods such as Total Quality Management (TQM) and strengths-based constructionist methods such as Appreciative Inquiry (AI)?

The sub-questions are:

- How can this integrated method provide levels of benefit perceived as greater than either could separately contribute?
- How can this integrated method be recognized by practitioners from either primary orientation as being of increased contribution through their combination?

- How can this integrated method be used and embraced by employees?
- How can this integrated method be clearly communicated to employees across various organizational levels and disciplines?
- How can this integrated method be packaged providing common scaleable baseline applicability across multiple industry or business segments?

Unit of Analysis and Participants

The previously described research question and its sub-questions were explored through in-depth surveys of 88 participants comprised of two groups of 44 each. The first group was those who are seasoned practitioners in the problem-based methodology of TQM for input relative to the strengths and weaknesses in problem-based business improvement methods. The other group of people surveyed was those who have used the strengths-based approach Appreciative Inquiry (AI) for input relative to its strengths and weaknesses. The sample size was purposeful in an effort to gain an adequate and workable data set input from a number of SMEs.

As part of interviewing each participant relative to their specific fields, they were asked to provide input and evidence (illustrations) relative to the potential for the successful integration of either of the two approaches. The conceptual information used for assessment and evaluation of the potential for merging problem-based and strengths-based were provided via open-ended questions and qualitative research analysis using thematic analysis. The SMEs and the researcher are members of the following professional interest groups on LinkedIn and initial contact with the SMEs was made via these groups:

Appreciative Inquiry Consulting. A growing cross-industry network of AI Consultants and Practitioners that partner in sharing ideas relevant to AI, a process for increasing the capacity and success of organizations. Group Owner: Loretta Donovan, 1,315 members.

Appreciative Inquiry 1st. AI was developed by Cooperrider and Srivastva and assumes that inquires into business problems will keep finding problems but an inquiry which attempts to appreciate what is best in itself will discover more and more that is good in a business. We offer positive support to each other. Group Owner: Kevin Chamberlain, 589 members.

Strengths-Based Lean Thinking / Six Sigma. This group is aiming to connect all those who are interested in the application of AI and other strengths-based change approaches to well-known, widely practiced business process improvement methodologies such as Lean Thinking, Six Sigma, BPR, TQM and the Balanced Scorecard. Group Owner: David Shaked, 178 members.

Six Sigma & Lean MBB. This group belongs to Lean Six Sigma Master Black Belt Professionals & Practitioners coming together to Learn, Network, Business Development, Business Opportunities, Best Practice sharing and Relationship building. Owner: Vijai Pandey, 550 members.

Data Collection

The researcher determined appropriate methods, tools, and templates for surveying / interviewing Subject Matter Expert (SME) practitioners of problem-based and strengths-based methodologies and determined appropriate methodologies for performing analysis of the SMEs perceptions of the strengths and weaknesses of both approaches. Pace and Sheehan (2004) described SMEs as individuals expected to have by virtue of their education and background to possess above average expertise and insights into a particular technique, methodology, process, or operational discipline. SMEs were qualified via their meeting predetermined criteria inclusive of length time of their practice, the extent of their contribution to their field of practice such as number of clients and their level of client contribution, the extent of their formal training and certification, and any publications.

The researcher posted the following letter on these LinkedIn professional group pages inviting qualified professionals to participate in the asynchronous interview / survey:

> Hello,
>
> I need your help in taking a survey. I am researching the integration of strengths-based improvement methodologies (specifically Appreciative Inquiry) with problem-based improvement methodologies (specifically Lean and Six Sigma).
>
> This research is being conducted as part of my PhD dissertation in a joint program between US based Taos Institute and Netherlands based Tilburg University.
>
> Please send me a note expressing your interest in participating in the survey, and I will send you access and orientation information. Thank you.
>
> Sincerely,
>
> Nick Dayton

Once the potential respondents expressed interest in participating, the researcher had access to their LinkedIn profile information which aided in vetting the participant's background as being appropriate. The researcher then sent out the following access and orientation information to the survey participant:

> Hello,
>
> I am writing requesting your help in providing key information needed for my doctoral dissertation. I am a PhD candidate in social and behavioral sciences at Tilburg University in the Netherlands, in a research program cosponsored by the Taos Institute.
>
> My research is aimed at determining the uses and comparative strengths and weaknesses of two different methodologies used for business improvement, and then assessing the potential for merging aspects of these approaches.
>
> You have been identified as a subject matter expert in one of two approaches to business improvement:
>
> • Problem-Based Methodologies – such as TQM and its derivatives Lean and Six Sigma
>
> • Strengths-Based Methodologies – such as Appreciative Inquiry

This asynchronous interview is administered via SurveyMonkey and it uses keyboard entry for all question responses. The link taking you directly to the interview is:

https://www.surveymonkey.com/s/_ND_dissertation

The first page of the interview will ask you to self-identify as being either a subject matter expert in Problem-Based Methodologies or Strengths-Based Methodologies. Please select the appropriate categorization and you will be directed to that interview. The questions in the two categories are almost identical, they just ask for your response from that category's perspective.

Please refrain from responding to both interview categories, unless you are a subject matter expert in both approaches.

After some baseline demographic questions, other questions are open ended to better elicit and record your responses.

Your responses are confidential and will only be reported in aggregate and differentiation forms using basic statistics and categorical coding.

This interview should take less than 30 minutes to complete and it is done entirely on-line. I value your perspective and input and it is very important to my research. If you would like to see the resultant data, analysis, conclusions, and recommendations, please let me know and once completed I will be glad to provide it.

If you have any questions or concerns, please don't hesitate to contact me.

Sincerely,

Nick Dayton

Interview Guide and Questions

The researcher surveyed individually the various SMEs in TQM and Appreciative Inquiry, asking them close-ended demographic questions used in qualifying and segmenting respondents and open-ended questions which elicited respondent experiences, knowledge / beliefs, and recommendations. The questions were designed to gather information about the respondents and to provide the respondent opportunity to express their perspectives regarding their primary approach, whether problem-based or strengths-based. The questions then asked

respondents to consider and describe the strengths and weaknesses of their selected method, then assessing the potential for using the strengths of one method to offset or mitigate the weaknesses of the other.

Close-ended demographic questions. The close-ended demographic questions asked respondents about their expertise relative to problem-based or strengths-based, their region, age, length of time in practice, and the number of times they had employed their expertise. The questions were developed with either binary or multiple-choice responses providing for a limited degree of statistical analysis.

Open-ended questions. The open-ended questions asked respondents to describe their past uses of their method, their successes, and less than successful applications. Respondents were asked to describe why and how they were successful and to describe how they could have assured more successful outcomes. After the respondents answered these questions they had to briefly describe the benefits attributed to the method they were not using and asked if they believed there could be synergism gained by the merging of problem-based and strengths-based methods. The follow-up question asked how their believed an integration of the two approaches could be accomplished. The survey is in the Appendix.

Data Analysis Scheme

The researcher then used data-driven thematic analysis in the following approach depicted in Table 4.1 for analyzing and interpreting various survey questions:

Table 4.1

Analysis Scheme for Survey Questions

Type	Format	Modality	Question	Analysis	Purpose
Demographic	Closed	Dual	1 - 8	Descriptive stats as appropriate	Subgroup analysis, entry qualification
Control	Closed	Problem-	9 - 12	Review for	Entry

		based		consistency of input, record anomalies	qualification, consistency of input
Control	Closed	Strengths Based	33 - 36	Review for consistency of input, record anomalies	Entry qualification, consistency of input
Control	Open	Problem-based	11, 13, 16	Review for consistency of input, record anomalies	Entry qualification, consistency of input
Control	Open	Strengths Based	35, 37, 40	Review for consistency of input, record anomalies	Entry qualification, consistency of input
Orienting	Open	Problem-based	19, 21, 23, 24, 27, 28, 30, 31, 32	Triangulate with solution input, note & describe inconsistencies	Perspective provided, assure topic understood
Orienting	Open	Strengths Based	43, 45, 47, 48, 49, 52, 54, 55, 56	Triangulate with solution input, note & describe inconsistencies	Perspective provided, assure topic understood
Solution Generating	Open	Problem-based	14, 15, 17, 18, 20, 22, 26, 29	Code, analyze, & develop integration recommendation	Problem framing, development of solution
Solution Generating	Open	Strengths Based	38, 39, 41, 42, 44, 46, 50, 51	Code, analyze, & develop integration recommendation	Problem framing, development of solution

After the SME input regarding both the strengths and weaknesses of each methodology was provided, summarization and analysis completed, and new working knowledge synthesized from the analysis, the researcher began the process of integrating problem-based and strengths-based approaches in a manner that attempted to pull the best of each methodology, integrating them into a single cohesive approach to work through an organizational transformation. Once the researcher completed this analysis and construction of a new organizational transformation paradigm, he submitted his findings and recommended approach to three select SMEs and one key informant, asking for their review and input. The post-analysis SMEs' input is incorporated at the end of Chapter 5. Upon completion of this refining action of the new combined approach, at least one SME for strengths-based approaches and one for problem-based approaches were

asked to discuss the new approach in their practice area and to provide feedback as to its perceived receptiveness, benefits derived, and efficacy.

Thematic analysis. Boyzatzis (1998) describes thematic analysis using data-driven code development and application as having three distinct stages: 1) deciding on sampling and design issues, 2) developing themes and a code, and 3) validating and using the code. Data-driven methods derive the codes from the data itself and as a result tend to have a greater interrater reliability than other thematic approaches, e.g., theory driven and prior-research driven approaches. The researcher used multiple specifically oriented open-ended questions, and each question due to its differentiation from other questions required the development of unique codes. The codes were not only derived directly from the raw data, in most cases they carried the same words and syntax. In order to qualitatively validate the codes developed for each question, the researcher developed the codes from the data, reviewed the questions with SMEs, and jointly concluded that the codes were derived appropriately from the raw data. There was no interrater reliability concern per se, as the researcher applied all codes developed to the raw data as a function of the analysis and sense-making. Once the codes were applied to the data, the researcher selected questions for each of three independent rating evaluators to apply the codes themselves, and there was no inconsistency determined between researcher and independent rating evaluators. In approaching the code development and application from this perspective, it was demonstrated that the codes were rationally and appropriately developed and applied. The approach taken was consistent with Boyzatzis recommended approach to code validation, which included the steps of coding the rest of the raw information and validating the code either statistically or qualitatively as appropriate.

It was essential for the researcher to address the need for demonstrable objectivity in all aspects of this research. While the researcher has an extensive background in a primary element of one of the fields being studied, a concern of reflexivity could undoubtedly be raised.

> Reflexivity requires awareness of the researcher's contribution to the construction of meanings throughout the research process, and an acknowledgment of the impossibility of remaining 'outside of' one's subject matter while conducting research. Reflexivity then, urges us "to explore the ways in which a researcher's involvement with a particular study influences, acts upon and informs such research. (Nightingale & Cromby, 1999, p. 228)

Reflexive recording. In order to identify and remove the potential for personal bias from their research, Suddaby (2006) encourages researchers to establish a means for conducting ongoing self-reflection to assure bias is removed from data collection, analysis, and reporting. The researcher's background in problem-based methodologies predisposes a favorable assessment of its benefits versus that of strengths-based methods. In order to combat this potential bias, the researcher maintained records of observations and perspectives with this in mind. In addition to this, the researcher diligently assured that the data spoke with its own voice through objective post-analysis SME review. The findings and discussion in this research reflect this diligence.

Subsequent to SMEs receiving feedback on the proposed merger of problem-based and strengths-based methodologies, and the incorporation of the feedback into the research conclusions, the researcher completed the merger of the two methodologies into a single integrated business improvement method utilizing the logic diagram in Figure 4.1.

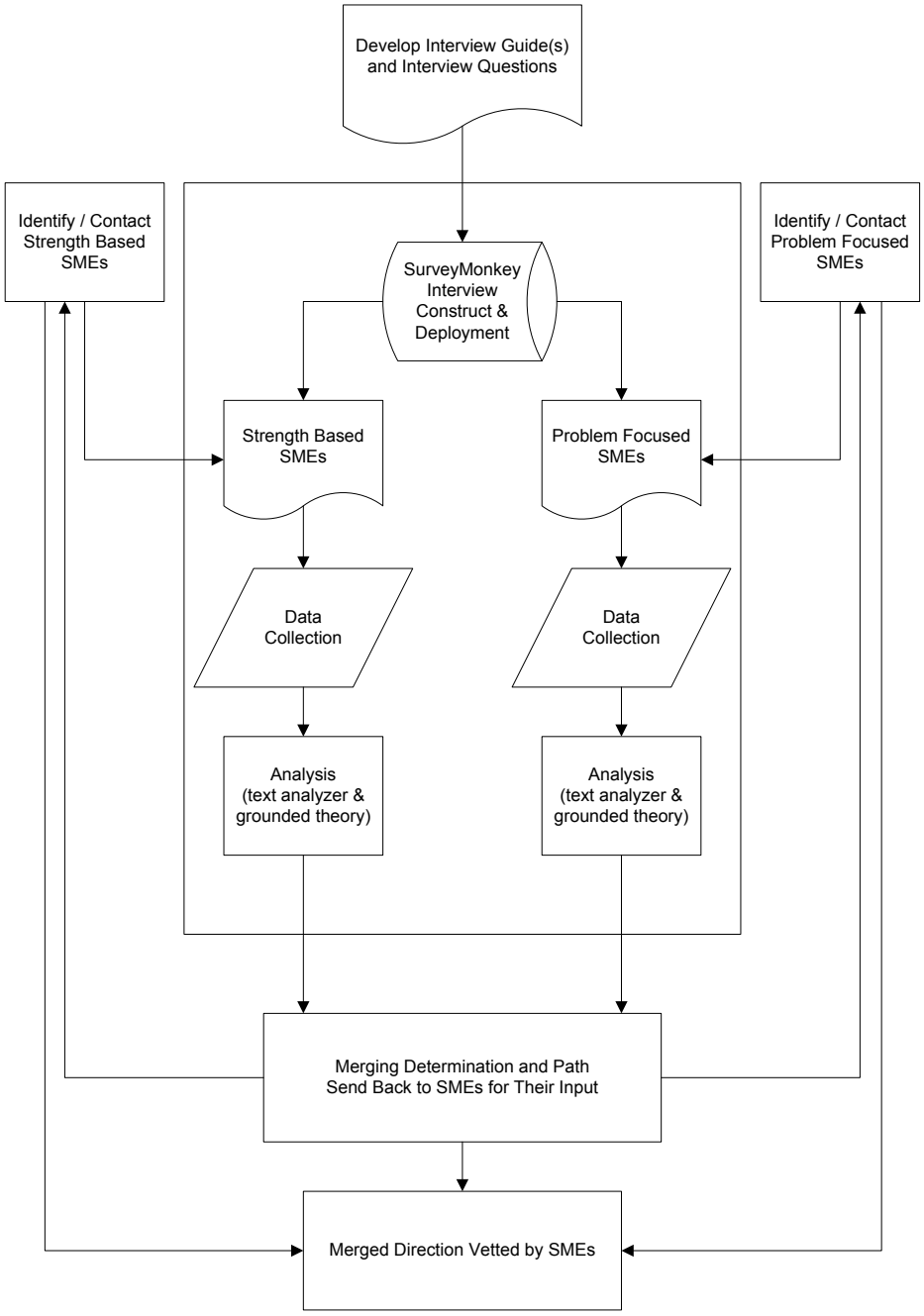

Figure 4.1. *Logic Diagram for Dissertation Development*

Methods for Validity and Verification

The goal of this study was to assess the viability and benefit of merging problem-based and strengths-based improvement methodologies. Surveys of SMEs were used to gain insights and inputs relative to the respective strengths and weaknesses of both methodologies and thoughts and recommendations regarding the potential for their merging. There were also SMEs identified and queried who have in their own practices accomplished some level of integration of problem-based and strengths-based methodologies. If the deliverables of this study are relevant, practitioners of either problem-based or strengths-based could potentially use the methods and approaches to augment their practice and improve their results. Utilizing open-ended survey and interview questions allowed for detailed description of concerns and recommendations, providing subsequent readers of this research opportunity to determine its utility and fit for their own applications.

The survey tool was reviewed and vetted separately by two communications specialists from a Fortune 100 pharmaceutical corporation who in their professional roles craft and administer employee and customer surveys. The communications specialists helped assure clarity and precision of survey questions and assured the questions contained no bias from the researcher and did not lead responses in any direction. The communications specialists were also informative relative to question sequencing, the incremental build of data, and developing the survey tool with ease, accuracy and precision of data collection and analysis in mind. As the survey data was collected and analysis initiated the communications specialists periodically reviewed the progress and offered relevant comments and insights.

The use of SurveyMonkey, provided the researcher access to a broadly used system for developing, disseminating, and collecting completed surveys for analysis. The use of

SurveyMonkey's, Gold Level provided the researcher tools for collecting, aggregating and graphically depicting quantitative data. SurveyMonkey, Gold Level contained software tools with algorithms for collecting and interpreting and depicting themes and common elements in open-ended text responses for qualitative assessment. Applied, the algorithms afforded graphical displays of word and thought clouds emphasizing words, which were identified as impactful and frequent. The researcher used these tools for display and as a second check for his application of manual thematic analysis methods.

The researcher used various external SMEs in quantitative and qualitative research, AI, and Lean Six Sigma as reference points. For vetting of approaches, the primary contributors were Drs. Abjit Gupta, Thomas Betancourt, and Angelien de Vries, and Mr. David Shaked, all independent scholars, researchers, and practitioners. Data collection and analysis methods and schemes are described in detail in this chapter.

Outcomes and Study Contributions

This research will be presented to the researcher's primary Advisor, Dr. Jacqueline Stavros, Professor of Management, Lawrence Technical University, and then to subsequent reviewers from The Taos Institute and Tilburg University, Oldendorff Graduate School. The final research project was the culmination of the following research steps:

- Preface and Acknowledgements
- Introduction (Chapter One)
- TQM: a Problem-Focused Approach for Improving Businesses (Chapter Two)
- A Strengths-Based View of Development (Chapter Three)
- Methodology (Chapter Four)
- Findings: Comparison and Contrasting of Respective Benefits and Weaknesses of Problem-based and (Chapter Five)
- Discussion and Recommendations (Chapter Six)
- References

This research schema and format allowed the reviewers a complete look at the research intent, literature review, method, analysis, and resultant conclusions and recommendations. The

research committed to all study participants that the conclusions and recommendation will be made available to them. The researcher also plans to via publications and presentations make the study path, analysis, and conclusions and recommendations generally available to the public in order for the various improvement practices themselves to improve.

Summary

This study has the potential to significantly improve the processes for both problem-based and strengths-based improvement approaches. It might not be the case that the merging of the two methodologies forms a uniquely different improvement methodology, it could potentially be that the merging augments each independently, e.g., providing problem-based practitioners the ability to integrate engaging and generative strengths-based elements, or to provide strengths-based practitioners additional analytical rigor to augment their design phase. The results could add to the academic literature and body of knowledge, but the researcher is primarily aiming the benefits in the direction of assisting struggling practitioners currently using either strengths-based or problem-based methodologies, and who are searching for more inclusive alternate paths.

Chapter Five - Findings

Introduction

The analysis of findings chapter is separated into two sections: demographics and survey response analysis. The demographics section describes the attributes of the subject matter experts (SMEs) responding to the survey. The SME attributes described are respondent's age, gender, educational level, and expertise with either problem-based or strengths-based improvement methodologies. The demographic findings were analyzed using descriptive statistics. The demographic findings were used to describe the backgrounds and qualifications of the SMEs and to describe the distribution of respondents across improvement modalities and backgrounds.

The survey response analysis section describes the SME responses to open-ended survey questions. Relative to the respondent's primary improvement modality, the questions were designed to determine their:

- familiarity and usage experience
- sense of completeness relative to the answers provided
- perception of the inherent strengths and weaknesses
- thoughts as to the potential merging of problem-based and strengths-based methods

The responses were analyzed to determine the respondent's position relative to the benefit (derived by the strengths of one offsetting the weaknesses of the other) and potential for integrating problem-based and strengths-based improvement methods and how the respondent might recommend accomplishing the merging.

Survey Respondent Demographics

Figure 5.1 shows the primary geographical locations of the 88 participants interviewed. Fifty nine (67%) of the survey respondents were from North America that includes the United States and Canada. With 29 (33%) of the respondents coming from outside of North America, the researcher considers the objective of getting SME respondents nonexclusively from a single region met. It is also apparent that, although the application of both the strengths-based Appreciative Inquiry (AI) 4-D methodology and the problem-based methodology of Six Sigma have their developmental roots in North America, their use and application has moved to other continents and countries.

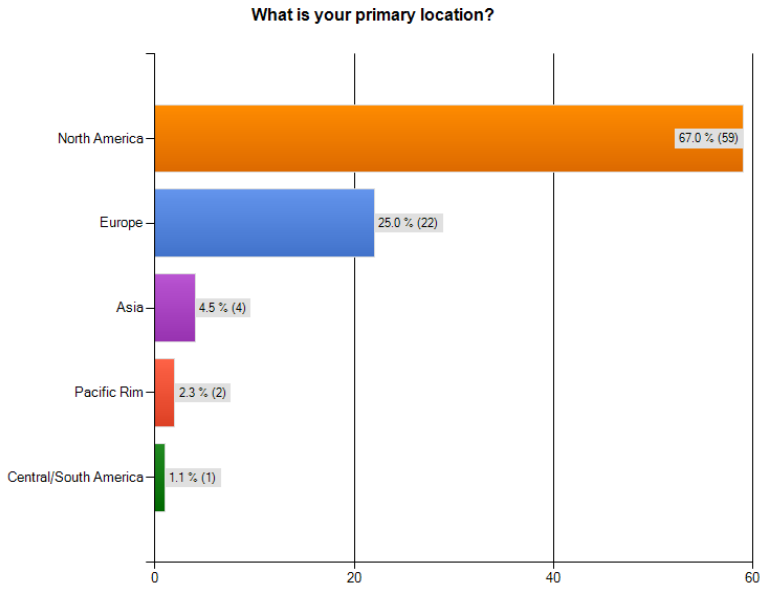

Figure 5.1. Survey Respondent's Primary Location

Figure 5.2 demonstrates the SMEs age range to be consistent with their having field-specific practice experience. With 43 (43.8%) of the respondents being 50 years of age or older, and a total of 77 (86.5%) being 40 years of age or older, the criteria of sufficient age is met. Respondent age does not necessarily correlate to their number of years in their respective

profession using the SME skills for which they were selected it is another data point indicating the desired criteria of sufficient field applied praxis.

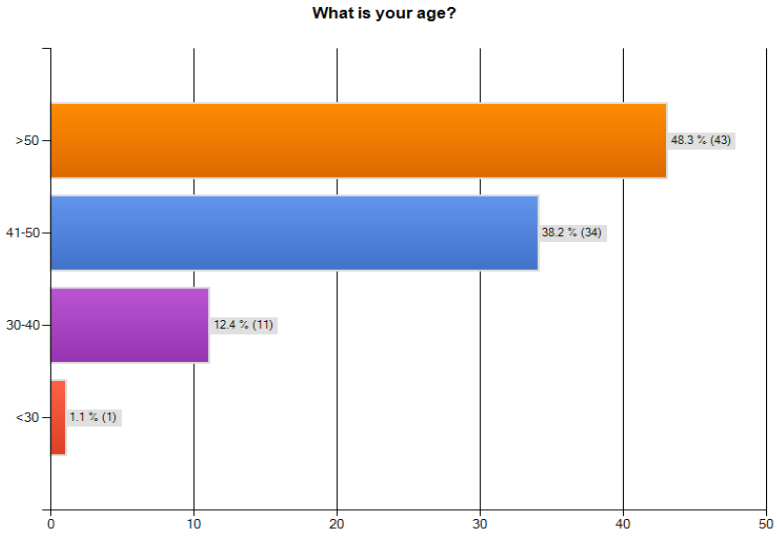

Figure 5.2. Survey Respondent's Age Range

As shown in Figure 5.3, the weighting for male to female respondents is weighted in favor of males, at 58 (65.9 %) responding males to 30 (34.1%) females, but there was no noted gender biasing of responses. There is potentially gender biasing of field selection, i.e., males in problem-based fields and females in strengths-based fields; however, the researcher does not have sufficient data, nor is it the intent of this study, to explore gender biasing in field selection.

While the researcher saw no indication of gender biased responses, it is interesting to note that the ratios of gender to specific methodology were somewhat pronounced in that the strengths-based respondents had a higher percentage of females (65 %), and the problem-based respondents had a higher percentage of males (72%). While it is tempting to speculate as to the potential significance attached to this finding, additional analysis and inquiry beyond the scope of the current research would be required prior to drawing meaningful conclusions.

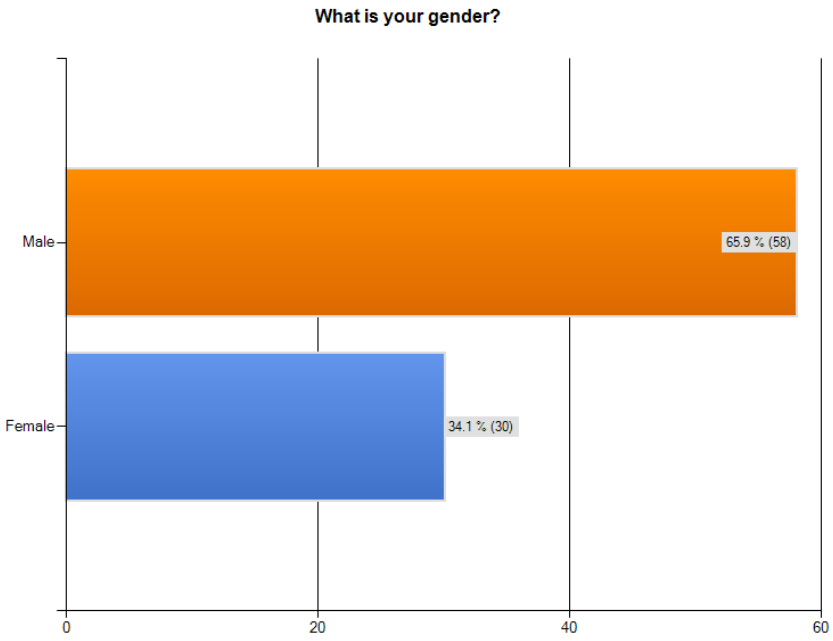

Figure 5.3. Survey Respondent's Gender

The researcher's effort to identify and use SMEs with sufficient field practice experience was successful. As shown in Figure 5.4, the respondents with 20 or more years experience in their respective fields were 51 (57.3 %). The total number with in excess of ten years experience in their fields was 68 (76.4%). A comparison to the previously reported age levels of the respondents further demonstrated the adequacy of SME age and years in profession to support the capacity for the respondents to have enough time in application to have mastered their specific fields.

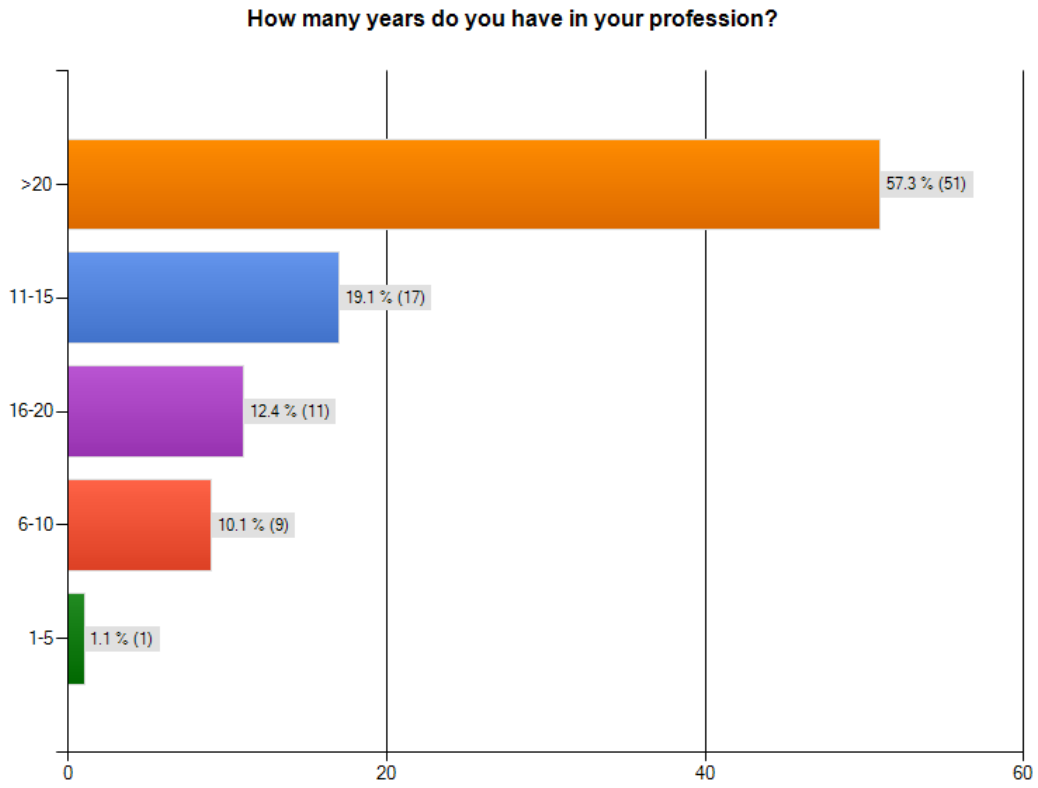

Figure 5.4. Survey Respondent's Years in Their Profession

As depicted in Figure 5.5, the SMEs come from a wide range of business types with no single business type having in excess of 28 (32.2%) respondents. Business types in this demographic were described in terms of business size (number of employees versus measures such as revenue, which could have proven difficult to obtain for privately held business entities), and ownership, such as public / private, sole proprietor, partnership, and non-profit, which provided some blending and some stratification. The largest grouping of respondents was in the grouping of over 1,000 employees and the smallest number of respondents was in the non-profit organizations. The problem-based respondents tended to be in the larger organizations (over 1,000 employees), and their roles were reported as being more institutionalized and their having

been recruited into existing and valued organizational roles. Strengths-based respondents tended to be in the sole proprietorship and partnership, which would be typical of consultancies and the part time work of full time academics. As the problem-based respondents described their roles and backgrounds in the various open-ended survey questions, they came to the methodology due to their observing in practice the need to identify the root causes of problems and to effectively work toward their elimination. The strengths-based respondents appeared to have come primarily to their field via their academic studies and an intellectual challenging of the problem-based paradigm.

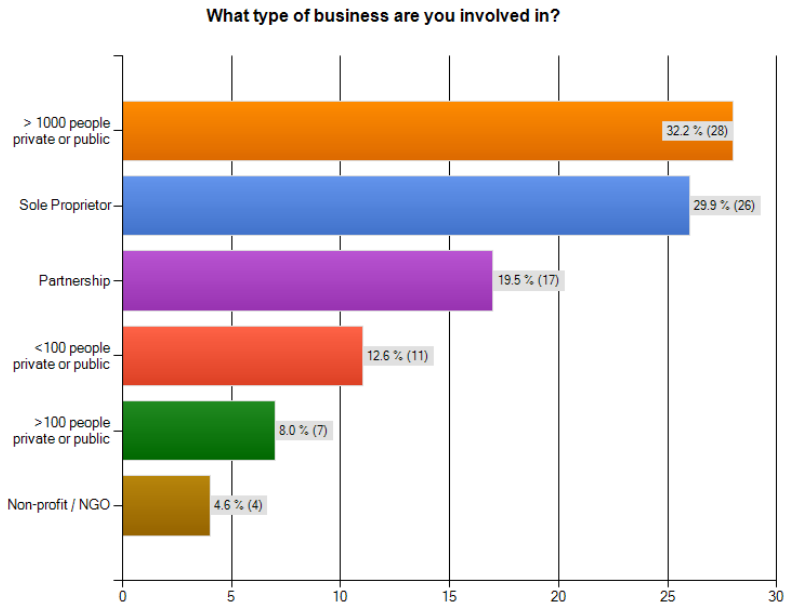

Figure 5.5. Survey Respondent's Business Type

As shown in Figure 5.6, the business segments represented by the respondents are broadly and relatively balanced between the segments offered for selection, with no single segment having more that 26 (29.2%) of the overall respondents. The category "Other" had a relatively large grouping at 21 (23.6%) respondents, but four other categories were within 2.4% of the "Other" category, so it was not in and of itself impactful relative to providing additionally needed granularity. Investigation into the respondents self-selecting the "Other" category

indicated that predominately they were consultants and as such worked across many different business segments. The researcher set nothing in place to assure the respondents were from varied business segments, other than using several cross-segment interest groups that appealed to strengths-based and problem-based improvement practitioners independent of business segment. The result was a grouping of practitioners with a broad range of business experience, reducing the potential for segment biasing.

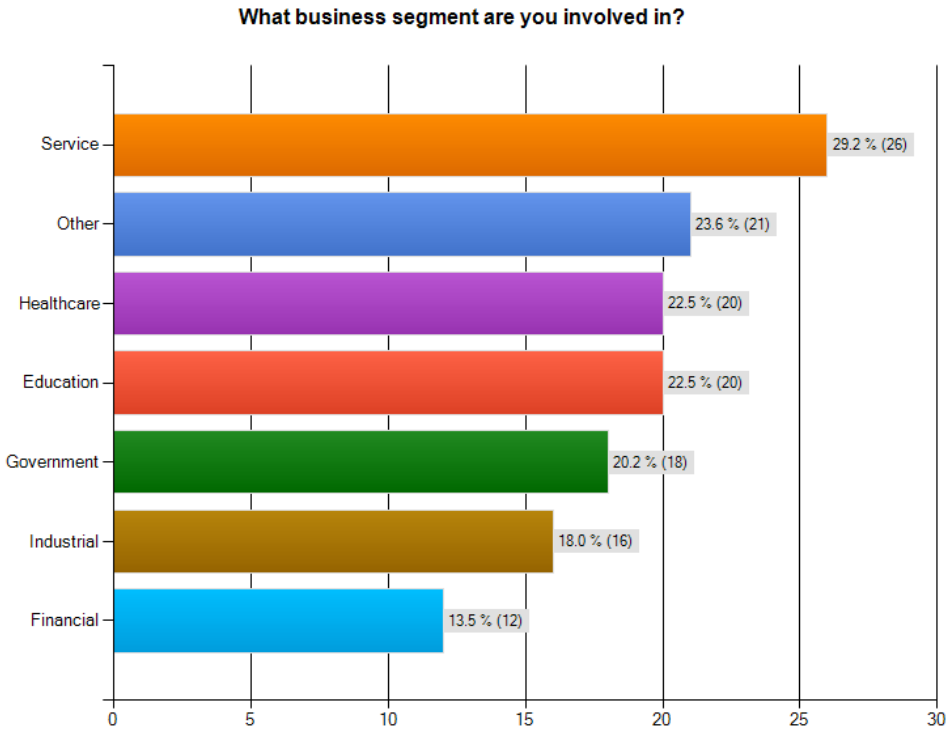

Figure 5.6. Survey Respondent's Business Segment

Figure 5.7 displays the educational level of the respondents demonstrated the capacity for adequate exposure to field specific theoretical information and training. The largest single educational grouping of respondents was at the Master's Degrees level with 51 (58 %). The next largest educational level distribution amongst respondents was at the Doctorate level at 18 (20.5%). Masters Degree and Doctorate levels combined were a total of 69 (78.5%).

Respondents with at least a Bachelor's Degree were 96.7% of all respondents. This assured an adequate educational level of survey respondents in effort to demonstrate appropriate SME knowledge and background. The distribution of degree levels between respondents from strengths-based and problem-based expertise showed a distinct weighting of higher educated respondents from the strengths-based field (with 80% of those respondents with doctorates, and 72% of those with master's degrees), the respondents from the problem-based disciplines tended to have lower levels of education (with 87% of the respondents having a bachelor's degree or less being problem solvers). These findings are consistent with the higher number of strengths-based respondents being academics and consultants, primarily in psychology and organization development fields.

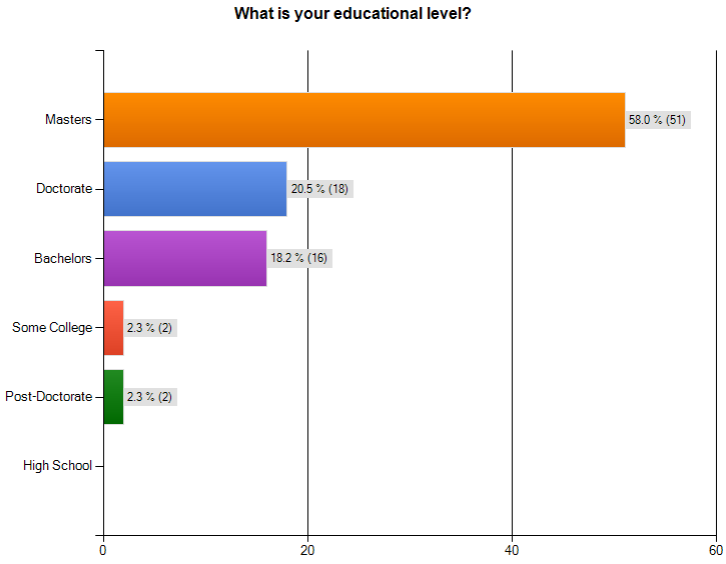

Figure 5.7. Survey Respondent's Educational Level

Figure 5.8 shows the respondents' background relative to their primary improvement modality. There was an adequate separation of field specific backgrounds for respondents in that

respondents with a strengths-based background were 48 (52.7%) and those with a problem-based background were 45 (49.5%) of the total population of respondents.

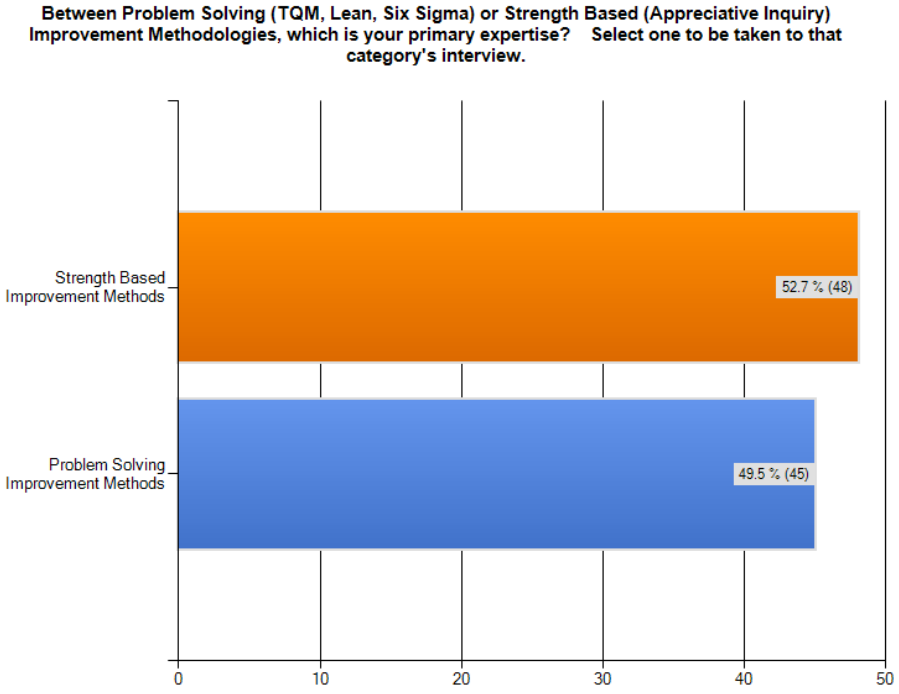

Figure 5.8. Respondent's Background Relative to Improvement Modality

The researcher endeavored to assure the problem-based respondents have been using the methodologies sufficiently long enough to qualify as an SME and 87.9% of the respondents have used the methodologies in excess of ten years. The remaining 12.1% of the respondents have used the methodologies at least five years.

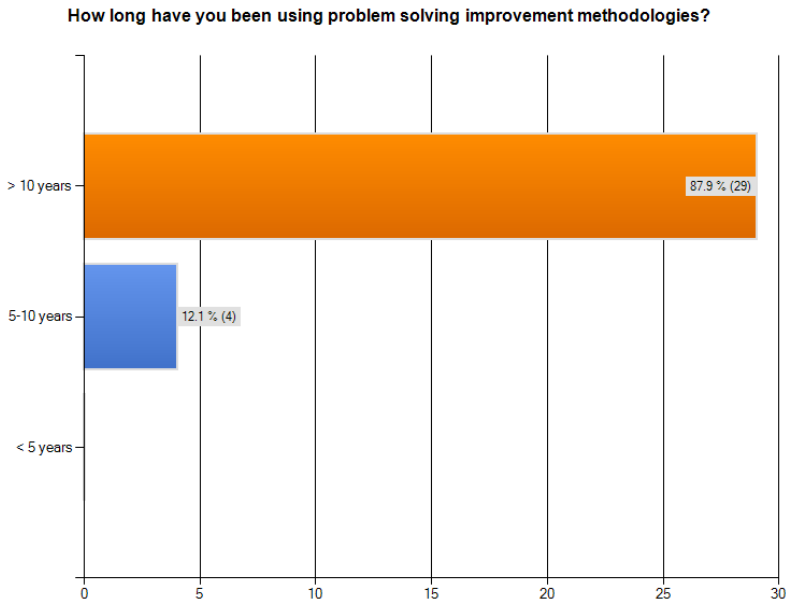

Figure 5.9. Respondent's Time Using Problem-Based

The problem-based SMEs have used the methodologies over a long number of years, but the number of uses per practitioner was also an important criterion. As shown in Figure 5.10, this criterion was also met in that 29 (87.9%) of the problem-based SMEs have used the methodologies in excess of 30 times. Another 2 (6.1%) had used the methodologies more than eleven times.

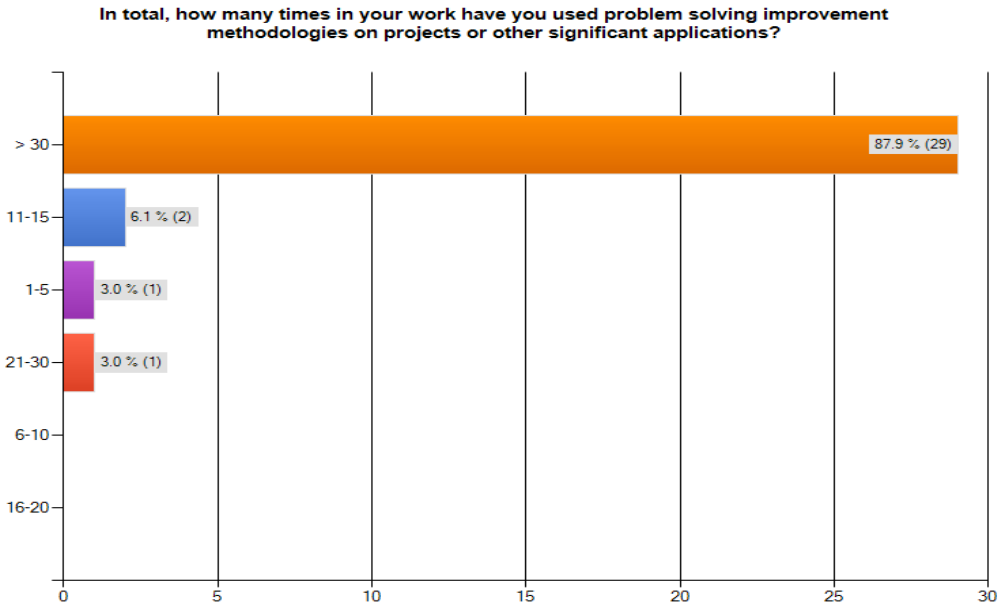

Figure 5.10. Respondent's Number of Times Using Problem-Based

Figure 5.11 shows SMEs' perception of how much higher-level managers openly support and value the use of problem-solving improvements and methodologies. When asked whether or not higher-level managers openly supported and valued the use of problem-based methodologies, 11 (33%) of the respondents said that they did, and only 2 (6.1%) of the respondents said that they did not. Overwhelmingly, 22 (66.7%) of the respondents replied that high-level managers only supported the initiatives sometimes. In review of the text of the open-ended responses this "sometimes" level of support appeared to be directly related to the perceived successes of specific projects or initiatives, with success interpreted relative to dollars saved and time required to complete projects. This implied a favorable leaning relative to support, but seemingly predicated upon the answer to the question, "What have you done for me lately?"

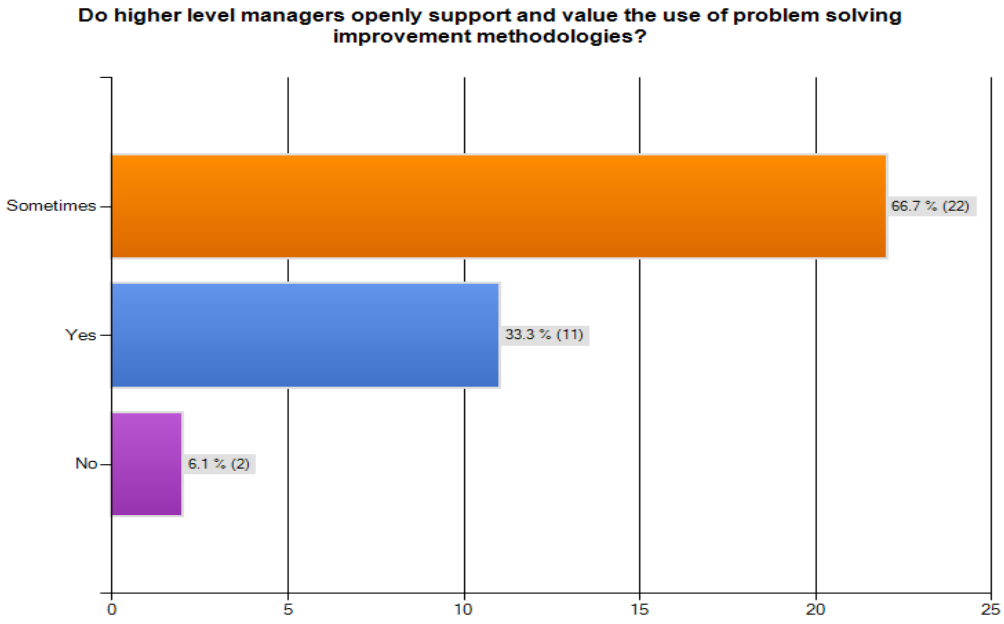

Figure 5.11. Higher Level Manager's Support of Problem-Based Modalities

Figure 5.12 further demonstrates the depth of experience and locus of application for the respondents self-identifying as primarily using strengths-based methodologies, along with their assessment of managerial support for their initiatives. The researcher endeavored to assure the strengths-based respondents have been using the methodologies sufficiently long enough to qualify as a SME, and 16 (50%) of the respondents have used the methodologies in excess of ten years, and 10 (31.3%) having used them between five and ten years. The remaining 6 (18.8%) of the respondents have used the methodologies less than five years. The number of years utilizing strengths-based methodologies is somewhat less than that of the problem-based respondents. While still more than adequate to qualify the strengths-based respondents as SMEs, it is merely indicative of the relative newness and less exposed and less applied state of strengths-based methodologies.

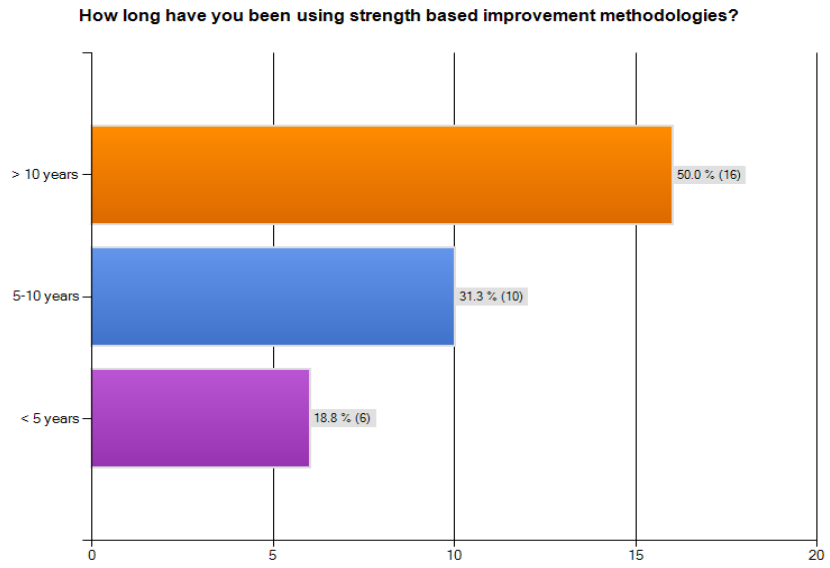

Figure 5.12. How Many Years Using Strengths-Based Methods

Although the strengths-based SMEs have used the methodologies over a long number of years, the number of uses was also an important criterion as demonstrated in Figure 5.13. This criterion was met in that 21 (65.6%) of the problem-based SMEs have used the methodologies in excess of 30 times.

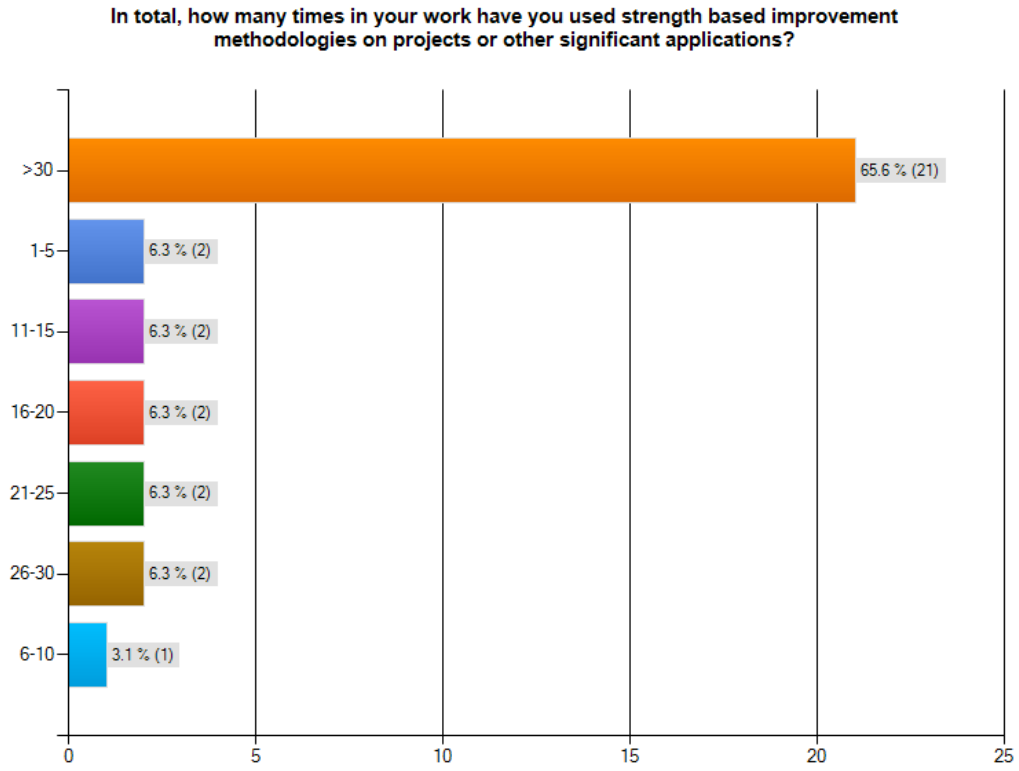

Figure 5.13. Respondent's Number of Times Using Strengths-Based Modalities.

Figure 5.14 displays the data that refer to whether or not higher-level managers openly supported and valued the use of problem-based methodologies. Thirteen (1.9%) of the respondents said that they did, and only two (6.5%) of the respondents said that they did not. Seventeen (54.8%) the respondents replied that high-level managers only supported the initiatives sometimes. As found in reviewing the problem-based responses, in review of the text of the open-ended responses this "sometimes" level of support appeared to be directly related to the perceived successes of specific projects or initiatives with success interpreted relative to initiative benefits derived. This implied a favorable leaning relative to support, but seemingly predicated upon the answer to the question, "What have you done for me lately?", but compounding this for the strengths-based methodologies is the perceived difficulty in calculating return on investment.

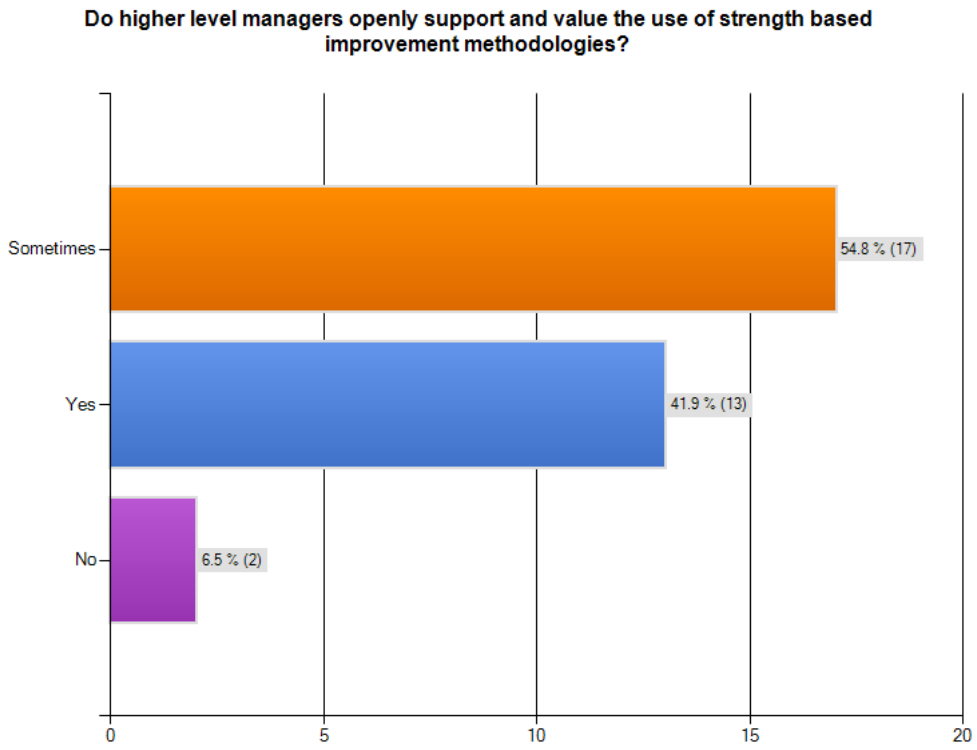

Figure 5.14. Higher Level Manager's Support of Strengths-Based Modalities

The above demographics collectively demonstrate that the 88 SMEs survey in this study were experienced practitioners, and they meet the requisite levels of education and field specific experience Their abilities to influence managerial stakeholders to support their initiatives was limited to a preponderate response of "sometimes" they provide open support for said initiative. This is particularly ironic since the primary recipient of organizational benefit derived from the initiative's success would be the higher-level manager himself. With problem-based being the entrenched methodology with readily calculable returns on investment and strengths-based methodologies being less widely used and potentially due to their organizational applications having less readily calculable return on investment, it was interesting to see comparable levels of higher managerial support for each.

Managerial support of problem-based and strengths-based methodologies. The respondent experiential findings in Table 5.1 demonstrate the respondent's assessment of managerial support for their separate initiatives. The findings regarding the perceived levels of managerial support for problem-based practitioners versus strengths-based indicated that both are prone to approximately the same level of support with the preponderance in the "Sometimes" category, followed closely by the "Yes" category. This indicates a general support of either methodology, but with a pronounced leaning toward sometimes speaking to support for the methodology as long as it produces positive results.

Table 5.1
Levels of Managerial Support

	Problem-Based	Strengths-Based
Sometimes	60%	55%
Yes	34%	39%
No	6%	6%

Analysis of Problem-based Findings

The analysis of problem-based findings is broken into three primary sections, 1) benefits of using problem-based methods, 2) weaknesses of using problem-based methods, and 3) improving problem-based methods. Each section is developed from the inputs of SMEs responding to open-ended questions. Redundant input was summarized and unique input was considered and included when consistent with the intent of the question. Input was not selectively included or excluded based on its alignment with specific beliefs or themes. The researcher rigidly applied objectivity and openness in the recording and interpretation of SME input.

Benefits of using problem-based methods. Respondents determined that the primary benefits derived from using problem-based methods when making data based decisions in a

team-based environment. They praised the structured approach and the analytical rigor provided by the methodology and described their belief that problem-based methods were readily accepted by people at all levels and functions within an organization. The acceptance of identifying and working to resolve problems was perceived as so elemental as to be a baseline foundational part of doing business, regardless of the business type. From the perspective of the respondents working problem-based methods, it was more a matter of how can they make their problem-based methods more effective than it was a question of how effective is a problem-based approach. Primary contributions are the collection of data to reveal true root cause issues and get away from emotional decision-making. Respondents stated problem-based improvement methodologies contribute positively to the organization in the following manner: 1) reducing costs, 2) improving customer satisfaction, 3) cultural improvements, 4) educating employees, 5) improving the organization's thinking process, 6) adding transparency and rigor to decision making, and 7) problems are solved based on analysis of data and facts not assumptions or long held beliefs.

Knowledge creation. Knowledge creation was a positive element, and the addition of cross-functional insights helped develop more efficient processes and increasing customer satisfaction. Knowledge creation as an output from using problem-based methods was seen as robust, transparent and in its focus in following the data, root cause determination was facilitated. When asked about problem-based methods capacity for knowledge creation, respondents replied with the following comments:

> RES 12: Problem-based methods provide a systematic methodology for uncovering cause and effect.
>
> RES 20: Problem-based methods add knowledge. Ultimately if leaders do not have the best information, they will make compromised decisions so creating process and relationship knowledge and putting that knowledge in the right hands is the key.
>
> RES 27: The most common thing I hear is that people say they did not realize what others did in the process and/or they did not realize how they impacted either upstream or downstream processes. Getting a

> team together to understand a full value stream is a huge benefit in getting people to begin to be able to develop in their thinking and be willing to suggest improvements that are best for the organization or customer and not just for their work process.

The various problem-based methods applied were seen as logical and aided in system interactions. The problem-based method focus on data acquisition and analysis was seen as the core and basis of knowledge creation.

Objectivity. Problem-based methods remove personal bias due to the objective reliance on data. Using a data-driven fact-based approach of looking across the entire organization's process flow was seen as aiding in the reduction of silo mentalities in which functional and departments are seen as primary versus the needs of the organization as a whole. Logical and analytical organization of data and thinking to isolate pathways to root cause identification is provided. In the use of problem-based methods, decisions are fact and data based and the data analysis helps determine the improvement direction undertaken. Understanding problems based on facts allows for a dispassionate challenging of the status quo helping in providing a roadmap for analysis and improvement inclusive of planning and project management. Problem-solving methods begin with clearly defining the problem through the eyes of the internal and external customers and this is perceived to provide an objective launch point into the collection and analysis of data providing the ability to address root causes of variation or waste rather than purely the symptoms. When asked about problem-based methods capacity for objectivity, respondents replied with the following comments:

> RES 9: When using problem-based methods decisions are fact (data) based. Let the data decide the direction.

> RES 19: Problem –based methods provide logical and analytical organization of data and thinking to isolate pathways to root cause identification.

> RES 40: Primary contributions of problem-based methods are the collection of data to reveal true root cause issues and get away from emotional decision making.

The objectivity provided by problem-based methods was perceived to increase the involvement of all stakeholders in the improvement initiative and sharing experiences.

Process improvement. Processes are made more repeatable as both special cause and common cause variance is removed from the process with the reliance upon and effective application of statistical analysis. Problem-based methods provide a repeatable methodology and reliable tools when used correctly, other advantages provided are checks and balances in the process, increased team work and the better processes provide revenue growth and cost savings. Another benefit is that it is team-based, so we have many different viewpoints participating in understanding the problem and developing solutions, which encourage a whole system approach to process improvement versus developing islands of excellence within a sub-optimized system. Engaging the right people in the teams provided better process improvement solutions and higher lasting implementation rates. When asked about problem-based methods capacity for process improvement, respondents replied with the following comments:

> RES 26: Problem-based methods involve people in the process and use data and science to improve the process.
>
> RES 32: Problem-based methods resolve process problems to improve the efficiency, productivity, quality, sustainability, maintenance, and optimization of a business or organizational operation.
>
> RES 40: Using problem-based methods allowed me to improve processes which then perform near ideal, at best cost and deliver when the customer needs the product, service or transaction.

Problem-based methods provide the ability to validate the impact of changes to the process statistically eliminating emotional decision-making by using data to drive and validate decisions. There is structure to the approach, using tools that make decisions based on the conclusions of previous tool results.

Clearly stated customer focus. Problem-based methods were seen as providing a path to guide the search to more effectively and efficiently meet customer needs. Problem-based methods are initiated by first determining the problem as seen through the eyes of the customer and a portion of the rigorous data gathering and analysis is provided via the use of tools such as a SIPOC (Supplier, Input, Process, Output, Customer) diagram. The approach used in the Six Sigma problem-based methodology is the DMAIC (Define, Measure, Analyze, Implement, Control) sequencing. DMAIC begins with Define, which is the requirement to determine the true problem as seen by the customer and not to focus on symptoms. When asked about problem-based methods capacity for identifying and utilizing a clearly stated customer focus, respondents replied with the following comments:

> RES 15: Problem-solving methodologies provide a path to guide you in your search to more effectively and efficiently meet customer needs.
>
> RES 17: Methods such as Lean and Six Sigma start their problem-solving processes by establishing needs, objectives and issues through the eyes of the customer. In fact that was the very basis of TQM, orientation of services and products to the specific needs of the customer, as defined by the customer.
>
> RES 20: Lean and Six Sigma provide the ability to clearly define what the problem is. As well as the ability to understand the "problem" from a customer perspective (example the VOC > CTS > Y=f(x) approach or the Value Add / Non Value add - customer perspective - approach).
>
> RES 31: The foundations of Six Sigma's customer orientation are seen in step one of the DMAIC process, which is to define the problem through the eyes of the customer and the last step of the SIPOC analysis, which is alignment of internal processes to the needs of the customer.

The operational manifestations of TQM, such as Six Sigma and Lean, retain TQM's customer centric approach.

Acceptance of problem solving. Respondents uniformly spoke to the acceptance of problem-based methods as being so fundamental that they were perceived as simply being part of life versus an optional approach to improvement. Respondents described as having been so ensconced in the scientific method for problem solving that they did not look at other alternative methodologies for improvement as being other than a potential for augmenting problem-based

approaches versus their replacement. Senior managers were raised from their early schooling in the scientific method to use problem-based methods and required their use in business improvement initiatives. When asked about problem-based methods capacity for being recognized as an accepted means of developing and implementing improvements, respondents replied with the following comments:

> RES 9: It is the "normal" way of approaching problems. There is no much discussion about applying it or not as it is embedded in the DNA of the organizations and its leaders. The first contribution of these methodologies is their being in line with the "usual" culture.
>
> RES 19: Problem-based methodologies are the basis of the scientific method in which we are all trained from elementary school on.
>
> RES 24: I think the reliance on problem-based methods really forms the basis of your research. The utter reliance upon problem-based methods is the only reason you are trying to determine if there is a better or an alternate path. It is the norm, the standard, and you are seeking alternatives.
>
> RES 36: It has been my experience in working as a senior engineer in Aerospace that trying to take an alternative method of process or organizational improvement beyond that of problem-based methods is not only a hard sell, but there is additional jeopardy attached in doing so in that there are a lot of people waiting for you to fail so that they can say they told you so!!!

Respondents reported that problem-based approaches were the norm, and the only questions that arose were which problem-based methods to use, how to use them, and whether or not their use had been as effective as they could or should have been in particular applications. Examples of this were seen in the frequent internal to a business inter-factional warring of using Lean versus Six Sigma versus their melding in the form of Lean Six Sigma, where it was not a question of using problem-based methods or not, it was a matter of which to use.

Weaknesses in problem-based methods. The weaknesses in using problem-based methodologies are primarily in their total reliance on analytical processes and focused problem-based team-based orientations. With this focus, almost totally missing are the people-based human elements of motivation, belonging, appreciation for contributions, recognition of strengths, and those positive elements existing already in organizations. People and their

feelings and wants are not in the problem-based equation, and participants come to sense that they are but replaceable cogs in the wheels of their organizational churn. Typically, problem-based methodologies are complex, require extensive training and are very much dependent upon a skilled and trained facilitator.

The problem-based tools are used in stepwise analytical processes and it's essential that the facilitator and team understand and apply the correct tool(s) in the correct manner at the correct time. The result of failure to appropriately and effectively apply problem-based tools can result in dramatic failures. Problem-based tools usage and the process steps can become very mechanical and predictive in application and outcome, greatly reducing the potential for innovation and the creation and use of new insights. The publicity and fanfare associated with the use of particular problem-based methodologies has given rise to high and immediate expectations of savings and improvements. Problem-based methodologies require for taking root and flourishing, a receptive culture and bring their own unique cultures and cultural adaptations. It can be an interesting and ironic dichotomy to observe and participate in bureaucracy busting initiatives undertaken using a bureaucratic problem-based methodology.

Human elements missing. Problem-based methods approach improvement opportunities through the analysis of data. Data-driven approaches are devoid of the human element. Even in the use of Value Stream Mapping, seen to be an effective problem-based tool in that it maps a process, and records flow times, process touch times, wait and queue times, and looks for process inefficiencies in doing so, all that is recorded is the as-found time impact. Value Stream Mapping does not speak to employee engagement, their willingness to work with the process, or other motivational impacts. The lack of engagement with people was seen as a weakness in problem-based methodologies and this was seen both in the process inefficiencies

being addressed and in the team-based approach to working on problems. When asked about problem-based methods missing the human element, respondents replied with the following comments:

> RES 5: The lack of engagement with people. Mechanical systems work best with negative feedback-loops and hence problem solving works best. People based systems work best with positive feedback-loops and hence strength based approaches work best.
>
> RES 17: We are very factual and process based in our thinking. We say our problem is the process, not people, when looking for solutions. However, when implementing changes, we again look at the process as a mechanical device we can reshape and thus have perform or operate differently, when in reality, people are very much a part of the process. We will occasionally address issues such as communication or work instructions, but do not look into the issues affecting long-term implementation. There are many reasons that people will chose to participate or not, and we do not address those issues, except in a surface manner.
>
> RES 23: It is very difficult to teach stakeholder analysis or understand people using a pure problem solving approach.
>
> RES 36: Problem-based methods rely almost exclusively on logic and analytics and are very weak in gaining group buy-in, winning the hearts and minds of employees, or in really engaging the core of stakeholders.

A number of problem-based respondents decried the team member selection and motivational problems encountered in working even pressing and apparent problems to resolution. Several respondents reported that different problems required different approaches, , and that separating the use of problem-based versus strengths-based methods by the type of problem faced misses the point in that you would be using one method or the other to work on problems, still, in essence, taking a problem-based approach to using strengths-based methods.

Complex methodologies and training requirements. The various problem-based methods primarily used today, e.g., Lean and Six Sigma, are both fairly complex methodologies to understand and use effectively. Both require extensive training in the methodology, types of tools, use of the tools, the selection of specific tools for specific problems, and when in the life of an improvement project to use the selected tools. Respondents reported that using complex tools when they are not required is a common phenomenon, and a primary weakness in problem-based methodologies. Group participation can be difficult and unintentionally minimized due to the

structured approach and the team member's potential lack of understanding of the tools and how they work. If the problem is not understood clearly and accurately and the tools are not used in the appropriate manner, problem-based methodologies can be a failure. When asked about problem-based methods having complex methodologies, respondents replied with the following comments:

> RES 20: A primary weakness problem solving improvement methodologies is with the experience, or lack of, the problem solving leader or its team members have. Becoming proficient with these tools requires past successes, past failures and mentoring. I do not believe an individual can successfully read a book on improvement methodologies, be the only team member with any understanding of the tools and then successfully master a complex improvement project.

> RES 29: Operators in a chemical industry control room do not have time to use complex tools and it is not their primary task. So they are limited to use just some tools. So the aim is to make these people "think" differently, posing correct questions and try to follow problem solving using a pragmatic method.

Problem-based methodologies are complex and highly dependent upon the leadership and facilitation of team leading highly trained specialists called Master Black Belts in Lean or Six Sigma applications and this can leave many of the lesser trained project team members feeling task oriented and less than fully contributing participants. Several respondents alluded to a condition they described as an unintentional self-fulfilling prophesy in that without the full contribution of the process subject matter experts on the team, the Master Black Belt potentially drives the team in one direction or the other based on his or her concept of which data to collect, how to analyze data once collected, and then how to interpret and action the analyzed findings.

Respondents reported that it is very difficult to teach stakeholder analysis or understand people using a pure problem-based approach. Team dynamics are key to the success of the project, and many times the leaders of the projects lack team development and deployment skills. It was stated by several respondents that the primary weakness problem-based improvement methodologies is with the experience, or lack of, the problem-based leader or its team members have.

> RES 33: Problem-based methods are so complex many do not understand them and many think they know what the answer is and refuse to accept that they may be asking the wrong question.
>
> RES 40: Six Sigma is so complex in application that even after extensive classroom training on the DMAIC process and its various tools, it takes 1:1 tutelage to assure they're applied in the right sequence and it's done appropriately and the resultant analytics are appropriately interpreted.

Training was not perceived to be a one shot approach and that becoming proficient with the problem-based tools requires multiple applications with successes, failures, and mentoring. Respondents were adamant that an individual could not successfully read a book on improvement methodologies, be the only team member with any understanding of the tools and then successfully master a complex improvement project. This weakness was not perceived to a failure of the problem-based methodology's the improvement tools but more of a failure of the individuals who try to implement them.

High immediate expectations. It was reported that a weakness inherent in problem-based methodologies is the unrealistic expectations of high immediate return on investment set by the senior management. Frequently problem-based improvement projects take longer than desired to complete and the returns reap soft benefits as opposed to more quantitative benefits. Problem-based methods take time and discipline. Much of the sell for initiating problem-based improvement initiatives describes big quick wins and that is rarely the case. Management is not perceived to be patient enough, expecting "home runs" rather than many "singles." Respondents stated that frequently data may not be available and that they needed to collect information to make data driven decisions, which ran contrary to management's desire to quick and multiple wins. When asked about problem-based methods engendering high immediate expectations on the part of management, respondents replied with the following comments:

> RES 3: Typically, with problem-based methods the complaints I hear the most from management are the time involved to work through some of the projects as well as some projects reap softer benefits as opposed to more quantitative benefits. There is an expectation that the saving for each project will be huge and immediate and that's rarely the case. Also there is an expectation that the methods themselves will

> identify the projects. Management must work to identify the projects based on their biggest operational pain. Problem-based methods routinely can be compared to winning a baseball game due to a lot of base hits, not a few homeruns. Certainly there will be some homeruns, but games a won with many singles.
>
> RES 13: The biggest issue I have seen with Lean Six Sigma is the initiative driven by unrealistically high expectations from management
>
> RES 22: Lean Six Sigma takes time. It takes discipline. Management sometimes is not patient enough, expecting a "home run" rather than many "base hits." Data may not be available and we have to collect information to make data driven decisions. My training books described the potential for management expectations being on conflict with reality in terms of their expectation of seeming only immediate home runs and not being satisfied with base hits.
>
> RES 38: Problem-based methods do not always provide management with the immediate answers that they are seeking - hence there is a tendency to deviate from the defined process to try to appease management, which is usually a disaster in the making.

When high expectations coupled with a frequent lack of top and middle management commitment and directives, and lack of time allotment for participation from teams, respondents believed they were in a no win situation doomed from the onset to failure.

Needs receptive culture. Problem-based respondents were uniform in their belief that their methodologies required a significant amount of pre-conditioning of the organization. This pre-conditioning included meeting and other communications describing why it was important for the organization to initiate a problem-based initiative, describing what was expected, what it needed to accomplish and by what time, and a clear description of who was leading it and how each person was expected to participate. This was not a one-time blitz of information it needed to become part of the culture, language and goals process. If problem-based initiatives were driven by egos or non-aligned stakeholder desires, or give short shrift in resource allocation and training they usually failed. It was observed that trying to force specific problem-based methodologies on a culture, rather than build them within the culture rarely worked. When asked about problem-based methods requiring a receptive culture, respondents replied with the following comments:

> RES 17: Problem-based methods require cultural buy-in and personal risk taking to expose oneself to data and using data analysis to drive change versus relying on conventional wisdom.

> RES 36: So much learning and works is needed to develop understanding of and proficiency with problem-based methods, it frequently adds to or creates a lack of responsibility and drive with managers and employees expecting external professionals to step in and solve their problems for them.
>
> RES 43: Problem-based methods fail when human egos, and/or financial capital and certain stakeholder issues lead to non-uniform and/or incorrect implementation and deployment. Not using common sense. Defining everything rather than describing things. Focusing on outcomes not relationships and process sequencing – all of these issues can result from the process improvement leader and management not effectively setting the stage and helping to assure a prepared and sensitized culture in advance of a Six Sigma implementation.

Respondents stated that without a pre-conditioning organizational and cultural intervention that specifically described goals, objectives, and assignments, it was not unusual for management to wish for instant gratification from short-term approaches and results. The pre-conditioning needed to specifically describe and follow-though on developing the initiative tasks from the organization's bottom upward and then down to each individual and seeing the tasks and activities as a whole business imperative versus a specific departmental item. Although the benefit of problem-based initiatives is that they are data-drives, it was observed that facts themselves may not be enough of a driver for change and no matter how accurately and objectively facts are presented, resistance will show up. Without an informed and receptive culture, there will be a lack of personal and organizational responsibility and drive, leading to managers and employees expecting external professionals such as consultants to come in and solve their problems.

Can become overly bureaucratic. People can take problem-based approaches and mindsets too literally and in trying to follow their steps, phases and lore create bureaucracy without keeping the bigger picture of the business fundamentals and the customer in mind. TQM derivatives Lean and Six Sigma in particular are steeped in folklore, written about extensively, formatted in rigorous sequential steps, and stratified via the use of Green, Black, and Master Black Belts signifying practitioner experience, leadership levels, and authorizations. When

asked about problem-based methods potentially becoming overly bureaucratic, respondents replied with the following comments:

> RES 27: People can take problem-based initiatives too literally, follow and create bureaucracy, without keeping the bigger picture of the business fundamentals and the customer in mind.
>
> RES 32: In Lean Six Sigma deployments it is very easy to get caught-up in being a Black Belt, versus a Green Belt, or a Master Black Belt and them worry excessively the your role versus someone else's role is more or less important and lose sight of the fact that you are trained and deployed to solve problems and make the business better versus moving up the "Belt" hierarchy.
>
> RES 41: As a Lean Six Sigma Master Black Belt I have seen businesses get far too worked up and worried about the ratio of one Belt level to another, which organizational level the Champions need to come from and the optimum number of people per process improvement team. My communication to them is to forget the Lean Six Sigma bureaucracy described in the book and do what needs to be done for their business.

Both Lean and Six Sigma stress organizational understanding, alignment and expectations. These organizational facets and beliefs can easily lend themselves to creating non-contributory bureaucracy aimed more at assuring compliance to preconceived notions of how to run a Lean or Six Sigma program than to creating a common organizational mindset and uniform competencies.

Team dynamics. Positive team dynamics are key to the success of problem-based initiatives and projects and many times the leaders of the projects lack team building and facilitation skills. Lean and Six Sigma in particular have a team-based approach in which every team member is expected to contribute. Teams are to be developed based on needs, competencies, and skill-sets. Respondents described the need to select team members based on more than knowledge of a process or area. While it is important to select technically knowledgeable team members, it is equally important to select members that will work together toward a common goal, synergistically integrating their various skills to the betterment of the overall team and its objectives. When asked about problem-based methods and team dynamics, respondents replied with the following comments:

> RES 16: With problem-based methods group participation can be difficult at times due to the structured approach and the team member's potential lack of understanding of the tools and how they work. Team dynamics are keys to the success of the project and many times the leaders of the projects lack team skills.
>
> RES 37: Nothing is ever really by the book in when using problem-based methods. The issue usually resides with sponsorship and perseverance within the organization and its structure and how well selected and cohesive the team is, because there will inevitably be problems and issue that need to be resolved and any team has starts and stops along the way.
>
> RES 43: I have noticed that Len Six Sigma initiatives are much more successful where an organization already has experience in and comfort with team building and using teams for improvement initiatives.

Problem-based methodology team leaders need to be skilled in the technical and analytical approaches and tools used, but as importantly they need to be skilled in the development and maintenance of teams. The team leaders need to understand social psychology and interpersonal dynamics to the point knowing how to motivate and gain contribution from team member with a wide range of personalities, some easy work with and gain contribution from and some potentially exceedingly difficult to deal with.

Analytical and discipline missteps. Problem-based respondents report that they are very factual and process based in their thinking, saying and believing that their problem is the process not the people when looking for solutions. However, when implementing problem-based changes and improvements, the practitioners look at the process as a mechanical device that can be can reshaped and thus have perform or operate differently, when in reality, people are very much part of the process. Problem-based methods will occasionally address interpersonal issues such as improving communication or work instructions, but they do not look into issues that affect long-term implementation. Respondents state there are many reasons that people will chose to participate or not in problem-based initiatives, but they do not address those issues, except in a surface manner since the focus in on the observable problems. The stated fear is if problem-based methods were used to improve human systems it would create and foster a "pointing finger syndrome." A respondent reported that he had been working on a zero defect

approach at Philips Automotive lighting and saw that speaking and dealing with problems every day under a high pressure led to depression and sadness with the belief that positive change was impossible and the situation they faced was "hopeless." Respondents expressed concern that those in charge of problem-based initiatives became narrow-minded and myopic in their implementation, deployment, and budgeting, and senior management as well as the entire organization needed to buy-in to the initiative with many reports of personnel becoming distracted and forgetting the initiative's stated purpose and objectives. When asked about analytical and discipline missteps, respondents replied with the following comments:

> RES 23: When using problem-based methods the misuse of tools and the too stringent application of methodology, inhibits innovation, becomes too time consuming and adversely impacts project completions.
>
> RES 31: In Six Sigma if the problem is not understood clearly and tools are not used in the appropriate manner, it can be a failure. Using high-end tools when it is not required is a common phenomenon and is one on the primary weakness encountered.
>
> RES 38: In general with problem-based methods improper application of methodologies, expectation of a "silver bullet" one-size fits all methodology or tool set, and arguments between practitioners of different methodologies, e.g., Lean and Six Sigma can lead to a failed or inefficient initiative deployment. In specific projects/applications there can be a tendency to bias toward particular solutions, coupled with poor facilitation.

It was perceived as essential to begin the initiative by laying a balanced foundation and considering the initiative a program versus a new and improved operational paradigm. Missteps fatal to problem-based initiatives included not using common sense, defining rather than describing things variables, focusing on outcomes not relationships and process sequencing, and using tools such as SWOT analyses at the wrong sequencing time. Management was faulted for trying to socially or behaviorally engineer and control results in a top-down, command-control operational culture and trying to force the initiative on a culture, rather than building it from within the culture.

Problem-based limitations. In describing the problem-based limitations 20 respondents (44%) perceived that the people elements regarding motivation, sense of belonging and

commitment, and buy-in were missing or very limited in the use of problem-based tools. The missing people elements combined with the complexity of problem-based methods provided a compounded effect of people either disengaging or failing to engage fully with the improvement initiatives.

Limitation 1. People issues were handled like any other problem to be addressed, and this became very convoluted when the people issues being addressed using problem-based, were people issues arising from the use of problem-based methodologies. People issues noted included or were the result of poor and untimely communication of strategy and the significance of the initiatives, ineffective team member selection and utilization, and an overall inability to motivate participants.

Limitation 2. Complex processes were also seen as difficult to address, progress was limited when faced with a lack of data. Data driven machines slow to a crawl when data is limited or unavailable and data driven process can use the wrong or inaccurate data and results can be inaccurate and corrections missed. The complexity of the process and the stratified identification of the problem-based method experts, e.g., Green Belts, Black Belts, Master Black Belts, trainers, and consultants, lend itself to the inexperienced team members waiting to be assigned project tasks and not fully utilizing the business process subject matter experts as a result. The rigor of the analytical process and the disciplined stepwise project conduct using problem-based methodologies such as Lean and Six Sigma can place more emphasis on conducting the methodology correctly than on creatively working to the problem's solution.

Limitation 3. Cultural issues can adversely impact problem-based initiatives and it is difficult to use problem-based methodologies to address cultural issues. The problem-based methodologies are devoid of the human elements and instead have an exclusive focus on data,

data analysis, and following the data to develop improvement actions. When there exists an improvement need either impacted or compounded by, or the result of cultural issues the tools and methodologies utilized in the problem-based practitioner's tool set are not effective. Data and logic are appropriate for the resolution of equipment and many process issues, and can be used to identify needs that have a cultural component, but when it comes to actually resolving of improving the cultural issue soft-sided organizational development or social psychology approaches are more effective.

Limitation 4. Change management is not perceived to be a core competency of problem-based processes and methodologies and their practitioners. While the DMAIC (Define, Measure, Analyze, Improve, and Control) process for Six Sigma has an implicit change management component, the training for the practitioners has as a primary focus the tool usage and analytics for managing the data. The highest levels of Six Sigma training, Black Belt and Master Black Belt, discuss the need establish, maintain and facilitate change management practices but they do not have sufficient theory or practice embedded in the body of knowledge to assure practitioner comprehension and competency, nor are there metrics or tools offered to assure practical management of changes once implemented. The Control step of the Six Sigma DMAIC process includes the need to develop change and process specific metrics to monitor the ongoing effectiveness of changes, but there is little from the perspective of selling the change and keeping an organizational awareness of the significance and need to keep the change in place.

Limitation 5. The problem-based tools and methodologies were perceived to be very mechanical in their stepwise application and tools selection and usage, restricting innovation and follow-through. The Six Sigma DMAIC process is stepwise in its flow and the tools used at each stage are selected as needed from a predetermined array of tools. Rigid standardization of

training materials, approaches, tools and tool usage, coupled with a set project and analytical format yields legitimate concerns about a limited scope potential for derived solutions.

Limitation 6. Identifying and utilizing effective process owners is critical to the success of problem-based initiatives, as is effective scoping of projects or problems. Process owner competency is an assumed predicate for successful development, implementation, maintenance, and institutionalization of problem-based improvements. Removing the human element of identifying and assuring practitioner competence for both the process under assessment and the assessor performing the improvement assessment leaves a large component of the potential for improvement unaddressed.

Unsuccessful uses of problem-based methods. The respondent's primary concern (19 respondents, 42%) expressed was one of the need to have more, clearer and continuous communication regarding the benefits derived and intended to be derived via the problem-based initiative. Better project selection and assuring the results were truly data driven was also seen as a high imperative. Management and complete organizational involvement was needed along with true personal and organizational accountability for outcomes was needed otherwise the success of the problem-based initiatives rested with the facilitator and to some degree with their direct teams. Change management and understanding people and their drivers was a vital element without which project would not have optimum and lasting changes, patches versus problem-based would be the resultant outcome. Problem-based initiatives that do not connect to the organization's strategic plans were seen as being doomed to failure. Problem-based initiatives that did not engage and change people failed regardless of the rigor and the appropriateness of the analytics used. Having the right answer did not help, if no one listened or cared.

Clearer and ongoing communications. Respondents stated that they needed more communication of the benefits, the why we needed it and how it drove sales or substantially reduced operating costs. This need was expressed from several points of view, it was seen as necessary in order to place it in perspective with day to day operating needs, balance of priorities was needed when allocating scarce resources, it explained why some functions or departments might be impacted to a lesser or greater extent by the project or initiative, and as important talking points when keeping the organization synchronized and appropriately prioritized. When asked about the need for clearer and ongoing communications, respondents replied with the following comments:

> RES 13: My less than successful problem-based initiatives (Lean Six Sigma) were primarily the result of the organization not understanding why we were doing it, what the benefits were and what the steps or stages were going to be. Management hired me as a Lean Six Sigma consultant and brought me in with no communication to their staffs regarding me, my assignment, and what I and the teams were expected to accomplish. It was left to me to explain my presence, get teams formed, and to work to resolving operational impacts. I had to incrementally update leadership and the employee base as a whole regarding progress. This was not an effective mechanism and the deployment suffered.
>
> RES 21: I was working on an internal Lean Six Sigma initiative in which senior leadership and middle management both took a very active role at the onset, but after the first six months rarely ever discussed it again or included it in their updates - other than to ask three years later what happened to the initiative and blamed it the initiative and those at the bottom of the organization still trying to work on projects unsupported be senior leadership.
>
> RES 42: I have worked as a Six Sigma consultant and as a corporate employee working on Six Sigma initiatives for the last 20 years and believe the initiatives rise and fall on the appropriateness, timeliness, and consistency of ongoing management communications. People work on what they believe leadership thinks is important and ignore what they don't think is important. Six Sigma is complicated and a lot of work and if it is not supported be senior management, people would rather not spend the time to do it and do it right.

High impact initiatives that are perceived to be over and above routine and ongoing activities need to be sold to the organization, no matter how important senior management perceives them.

Better project selection. Proper project selection is perceived as an imperative for successful problem-based improvement initiatives. Projects have a much better change of successful completion and organizational acceptance as an imperative when they integrate with the organization's strategic plan, demonstrate a money-driven basis, and focus on the customer,

ROI and growth areas. Respondents cautioned to be assertive with leadership about the potential risks and negative issues arising from poorly or inappropriately scoped projects. When asked the need for better project selection, respondents replied with the following comments:

> RES 17: I had a massive Six Sigma failure on a key project because we began the effort with unsure direction and understanding of the importance of the effort to the business. Lack of connection to the business strategy caused a number of project restarts, redirections, and cancellations.
>
> RES 21: I do not consider identifying "flat tires" as being less successful despite the fact they turned out to be quick fixes. On the other hand, I feel my less than successful outcomes are most associated with projects that were either ill-defined or poorly conceived, and as a result the team was not supported to carry the project through completion. The financial support ended priorities of team member's shifted and results were not gained in the time project sponsors expected.
>
> RES 44: Project selection is essential to the success of a problem-based improvement initiative. If projects do not have value to the organization or are too nebulously defined failure is inevitable. All it takes is one poorly defined and wrongly scoped boil-the-ocean project to at the start of a Six Sigma initiative to throw the entire initiative into question. Project participants will move away from the project and will lose confidence in the initiative, as will management draw away and reduce necessary funding in favor of things that work and activities perceived to have a more predicable return on investment.

Projects selected due to a senior manager's pet peeve or a single area's desire to optimize to the potential sub-optimization of other areas are quickly seen as such and casts doubt on overall initiatives.

More of a data driven focus. Respondents believed that in less than successful outcomes using problem-based improvement methodologies, getting to a data driven solution sooner would have improved the project's results. This could have been achieved by making better decisions early in the project, having dedicated resources or better defining expectations at the very beginning. The upside in having rigid and rigorous problem-based methodologies is that the central focus is on data, its acquisition, analysis, use in developing and driving improvements, and then monitoring for sustaining improvements. When asked the need for more of a data driven project focus, respondents replied with the following comments:

> RES 7: Several Six Sigma projects took too long to obtain data and were as a result stopped at the end of the Analyze stage without any Implementation.

> RES 12: Many organizations don't seem to have the management discipline or culture to make effective use of more information. It actually makes problem-based initiative worse because the data is used to justify doing nothing.
>
> RES 17: I had several Six Sigma projects in which the data seemed to support a specific solution, but the solution not implemented for political or other reasons. This led to non-data driven highly subjective approaches to problem solving under the guise of Six Sigma, throwing the subsequent use of the problem-based methodology into question.

When data does not drive the problem-based analysis and improvement, the improvements wind up addressing symptoms versus true root causes and solutions are selected based on opinion and preconceived ideas.

Management and organizational involvement. Respondents said they at times needed better alignment between management and the team members. A failure referenced was where the manager of the department failed to supervise. The manager arranged for a problem-based improvement event, asked people to attend and when some key people did not, he just began to wring his hands and say he would try to get them to participate. Ineffective leadership and organizational management set the course for failure. When asked about the impact of management and organizational involvement, respondents replied with the following comments:

> RES 15: The lack of top and middle management commitment and directives dooms problem-based methods such as Lean and Six Sigma to failure. This results in a lack of time allotment for participation from teams.
>
> RES 21: Lean and Six Sigma initiatives frequently fail due to lack of management engagement and their failure to build enthusiasm and a sense of commitment in employees. The following issue directly results from this lack of management initiative: Being narrow-minded in their implementation, deployment, budget, and C-level as well as whole organization buy-in. We were distracted and forgetting the purpose. Not laying a balanced foundation. Not understanding them, or being properly trained in them. Using them as "a program" was a problem. Letting human egos, and/or financial capital and certain stakeholder issues lead to non-uniform and/or incorrect implementation and deployment. Not using common sense. Defining everything rather than describing things. Focusing on outcomes not relationships and process sequencing were also issues. Doing SWOT analyses at the wrong sequencing time. Trying to socially or behaviorally engineer and control results in a top-down, command-control operational culture was an issue from the start. Trying to force them on a culture, rather than build them within the culture. We found ourselves wishing for instant gratification from short-term approaches and results. Not growing them from the bottom-up, down to each individual. Too often we saw them as a departmental item.
>
> RES 37: Six Sigma and TQM take time. They take discipline. Management sometimes is not patient enough, expecting a "home run" rather than many "singles". Data may not be available and we have to collect information to make data driven decisions.

Other instances referenced including the proper people showing up with little pre-communication and wondering why they were there and what they were supposed to do. Alignment needs to be bidirectional, if management sees an improvement imperative it needs to be clearly communicated to employees, and if employees see a pressing need to improvement it needs to be clearly communicated to management. It was reported that when they achieved less than desired, it has usually been due to a failure to setup the process properly or a commitment to devote the time to do the work.

Better change management. It was reported that in the cases of cancelling projects and maintaining implemented solutions, had the problem-based methodology been followed fully from the start, these could have had more opportunity to be avoided. Regardless of whether or not the methodology had been adhered to, it was believed that the skills development and tools needed to assure effective change management was not an adequately developed or applied component of problem-based methodologies. With projects involving people-related issues, investing more time in managing stakeholder expectations and involvement could aid in change management in that there would be more uniformity in understanding the needs and benefits inherent in the project or initiative. When asked about the impact of change management, respondents replied with the following comments:

> RES 9: Group participation can be difficult at times due to the structured approach and the team member's potential lack of understanding of the tools and how they work. Team dynamics are key to the success of the project and many times the leaders of the projects lack team skills. In Six Sigma, the DMAIC process ends in the IC stages of Implementation and Control. I frequently see teams disband early in the Implementation stage and they are well gone before the Control stage completes. Inexperienced team leaders tend to think that as long as they have a Control Plan in place that the process owners will assure effective implementation and ongoing change management. Without effectively keeping the team engaged for the Control stage there is no true change management, just facts, data, analysis, and plans to correct.
>
> RES 21: Show me in the Six Sigma process where there is anything regarding change management other than the Control phase of the DMAIC process. And the Control phase is usually complied of determining data driven metrics review. That can aid in change management, but it is NOT change management!!
>
> RES 32: Problem-based methods help in correctly identifying a problem versus looking at symptoms, they are terrific in gathering and analyzing data, and they are good for identifying and trialing corrections for

> problems, but they do not in and of themselves manage the change. I have argued this in the past numerous times, data and metrics in the control part of DMAIC help manage the change, but change management is a different skill set with its own methods, tools and parameters.

Alternatives to looking to the problem-based methodologies and their various bodies of knowledge for change management practices were to augment them with project management technique training through various training and certification programs, such as the Project Management Professional (PMP) provided by the Project Management Institute.

Better understanding of people drivers. Several respondents reported that they were beginning to understand that various solution-focus tools could be used to help them keep moving forward during times when project progress stalled. Aligned with the understanding of applied psychology for change and people would be to stop calling the results or the projects as being the responsibility of the team leader or facilitator. Once all team members and employees understood and accepted that they collectively owned both the problem and solution, teams could and would embrace both the need and the improvement. When asked about the impact of understanding people drivers, respondents replied with the following comments:

> RES 22: Problem-based methods have a lack of engagement with people. Mechanical systems work best with negative feedback-loops and hence problem solving works best. People based systems work best with positive feedback-loops and hence Strengths-Based approaches work best.

> RES 27: Six Sigma's being data-driven, is good but facts may not be enough as driver for change and resistance will show up. There are high expectations from management but that is inconsistent with the lack of responsibility and drive that can exist when managers and employees expect (external) professionals to solve their problems. It's very difficult to win the hearts and minds of the organization, facts and data are not enough and as effective in many things as Six Sigma is, there is no training in motivating people.

> RES 42: In Lean, Six Sigma, and TQM, we are very factual and process based in our thinking. We say our problem is the process, not people, when looking for solutions. However, when implementing changes, we again look at the process as a mechanical device we can reshape and thus have perform or operate differently, when in reality, people are very much a part of the process. We will occasionally address issues such as communication or work instructions, but do not look into the issues which will affect long-term implementation. There are many reasons that people will chose to participate or not, and we do not address those issues, except in a surface manner.

Motivating team members and gaining uniformly high levels of participation and commitment was seen as a daily struggle and team leaders reported seeing themselves largely as monitors and cheerleaders versus the technical facilitators of the projects.

Project alignment with strategic plans. It was seen as essential by the problem-based improvement practitioners that the projects selected aligned closely with and support the organization's strategic plans. The project portfolios needed to be periodically reviewed against strategic plans and objectives in order to assure effective and appropriate assignment of resources. Conversely, some potentially viable project proposals that could have been workable projects returning an acceptable return on investment were of little interest or value to senior leadership when they were presented in a manner not linked to particular strategic objectives and subsequently resources were not allocated to them. When asked about the impact of project alignment with strategic plans, respondents replied with the following comments:

> RES 15: When leading Six Sigma initiatives, especially at the onset of the program, I have seen leadership pick a current pain point and assign that as the project. When that happens if resources become strained or over-deployed leadership will pull them off anything that does not fit the organization's strategic plan. If the Six Sigma project does not support the strategic plan your resources will dry up and the project will fail. Besides, if the Six Sigma program is no important why would projects be selected that do not support the project plan?

> RES 23: In my Lean Six Sigma consulting practice, the very first thing I do in my meetings with leadership is to stress the fact that they have to make the program obviously important to the organization and one very important way of doing that is to assure that the organization understands its strategic plan and that the Six Sigma program is assigned elements of the strategic plan to action. Projects that do not align with strategic plans should not be worked on because they waste the organization's resources and deplete the effectiveness of the Six Sigma initiative.

> RES 38: Why would you use your most powerful problem solving weapon like Lean Six sigma on projects that don't align with and support the organization's strategic plans? I have seen that be the case before and the Six Sigma initiative failed as did the company. Think of it as highly training and deploying a very select special operations force in wartime and then just having them digging drainage ditches around an encampment. The ditches might need to be dug and they might be tireless workers, but what an incredible waste of highly trained and specialized resources!! Especially when you then lose the future battle and say, "Having those special-forces guys didn't do us any good I wouldn't recommend training anymore of them."

In addition to the allocation of resources, once employees at all levels understood that the specific problem-based improvement project was in support of strategic plans acceptance and buy in was increased.

Positively stated objectives. Respondents shared their observations related to the need to express objectives in a positive manner. One respondent said that instead of saying the project was for "improving the customer satisfaction", he would say "let's create a memorable customer experience" finding that phrasing much more motivating as it opens creative and engaging possibilities beyond that of problem fixing. When asked about the impact of positively stated objectives, respondents replied with the following comments:

> RES 17: In using problem-based methodologies sometimes we are dealing with human issues such as dealing with our Employment Engagement Survey. We were talking about "building on our strengths" but what we were doing was listing our strengths, and then we rapidly forget them and focused on our weaknesses and starting doing a gap analysis with all our tools. I was very frustrated at that time as I had the philosophy to build on our strengths but I did not know how to apply this philosophy with a very practical building on strengths process.
>
> RES 29: Some of my less successful outcomes have been due to missing the desired improvement goals. This has been due to a lot of reasons, but mainly due to an improper setup of the project or failure of individuals to be willing to participate in the process. I think that their unwillingness to participate was simply their not wanting to work on and be associated with another problem. Some problems I was able to restate in a positive opportunity perspective but others I was not able to do so with. I did notice that the few that I was able to frame as a great opportunity for improvement everyone wanted to be part of and some of the ones that were positioned as a looming catastrophe unless fixed no one wanted to be associated with.
>
> RES 40: I have really come to feel over the years that the focus on problems, problems, problems wears down an organization and its people. From my own perspective I'd much rather be working on something that's looked at as working on something positive versus another problem. Anytime I can rephrase or re-identify a problem as an opportunity I do so. Now in saying that I think that most people are smart enough and aware enough to understand that you've done that, reshaped a problem to be looked at as an opportunity, but I don't think that really matters much. If they can self-identify or look at something in a more positive vein that take that and run with it. Some folks won't change their thoughts on a topic but they seem to be in the minority, and they would probably look at any opportunity as a problem anyway.

It was observed that when trying to enlist team members for problem-based projects it was easier to get volunteers when they framed the need or opportunity in a positive manner such as saying they were building upon what was already there, versus fixing a broken process.

Improving problem-based methodologies. Respondents to the question of how problem-based methodologies could be improved, overwhelmingly (40 respondents, 87%) stated that people psychology was needed for motivating individuals and teams and in developing and deploying effective training and communications. Other improvement concerns revolved around adding tools, discipline, change management, and a less dogmatic approach. Standardization of methods and project selection were needed and practitioners keeping tools usage current were deemed incremental improvements as was ending practitioner's warring over preferred methods, e.g., Lean, Six Sigma, and / or Lean Six Sigma. With the onset of online training and other distanced approached to learning problem-based methodologies, there are many practitioners lacking real world experience and this needs to be a prerequisite to qualifying practitioners for initiating and leading problem-based initiatives. Overcoming imbedded management thinking was seen as a necessity for helping organizations develop, implement and then live new and changed processes.

There is a tendency for the field's practitioners and the body of knowledge to plateau and not advance past its current state. Innovation was at the core of methodologies such as Lean and Six Sigma and their static condition can't end innovation in what was an evolving and ever improving process. Selecting meaningful project is essential and improvements in project vetting and selection need to be developed and there is a related need to get to better results quicker. A significant improvement need noted was in better framing problems or opportunities in a more positive manner. Communications could and should be better tailored to specific populations and subpopulations in problem-based initiatives and framed specifically to different needs and phases of the initiatives. More often than not, projects are identified on current pain

versus longer-term opportunities, and a more strategic approach needs to be instilled versus relying solely on tactical responses.

Adding people psychology. Respondents recommended that the body of knowledge for problem-based methods be expanded to include adequate levels of training to assure a basic understanding of people, their drivers and motivators, and how to effectively reach and communicate to them. A couple of problem-based respondents were already aware of work of David Cooperrider and others in regard to positive psychology and helping organizations self-identify areas of excellence and building upon them in an effort to let the increased strengths offset the negative areas. When asked about the potential for improvement of problem-based methods by adding people psychology, respondents replied with the following comments:

> RES 5: Problem-based methods could be improved by understanding the psychology of people. There are some groups starting to put the pieces together, but in reality the work of the likes of Seligman and Cooperrider is new (only the last 12 years) and there is still a lot of work to be done around how Positive Psychology and Problem Solving fit together. We believe that the Business Excellence frameworks (in Australia and Europe) provide the best vehicles to bring the two disciplines together - but there is still a lot more work to be done.
>
> RES 11: Within the Six Sigma DMAIC framework, I could see that in the Improve and Control phase we should give much more attention to the human factors involved in the process. We should be assessing people's acceptance and motivation to continue with improvements.
>
> RES 17: I am a Six Sigma Master Black Belt and I completely understand the statistics and the problem solving methods, but I have a great deal of problem motivating team members to do their best and to excel in their work. My training is highly quantitative but lacks the human components of dealing with people. My Six Sigma Master Black Belt trainers taught me a number of techniques to use to get people to really enlist in the program and work projects to resolution but the techniques are more tools and approaches to use in generalized situations. Sometimes they work and sometimes they don't work. We keep being told in our training that being data driven wins over the doubters – it can, but only if the doubters have concerns that data answer.

Although there was some level of awareness of strength-based methods the perception was there was still a lot of work needing to be done in order to operationalize them and make them workable. It was stated that the business excellence frameworks in Australia and Europe provide the best vehicles to bring the two disciplines together but the movement is still embryonic.

Using a less dogmatic approach. Respondents viewed the dogmatic approach taken by problem-based methodologies such as Lean and Six Sigma from different perspectives and with different levels of appreciation. Some respondents saw the overly dogmatic and religiously applied approaches as a downfall and gave examples such as the belief that "the only way to improve is to make a transformational change and implement Lean Six Sigma" in support of the detrimental and myopic stance taken by some devout practitioners. Others proudly and confidently stated that rigorous adherence to the problem-based methodology's principles and stepwise processes were all that assured accuracy, precision and repeatability of results. Most tended to take a middle ground relative to the potential for harm found in the dogmatic approaches, while fully admitting the presence of the dogmatic schooling and applications. When asked about the potential for improvement of problem-based methods by using a less dogmatic approach, respondents replied with the following comments:

> RES 2: Six Sigma and TQM practitioners need to be less dogmatic and "religious" in their approach (example - the only way to improve is to make a transformational change and implement Lean Six Sigma) - most consulting practitioners of problem solving methodologies almost end up trying to convince an organization to "believe" and allocate potentially significant resource.
>
> RES 16: Lean Six Sigma and TQM zealots tend to walk around as if in a robotic haze, preaching the benefits of belief in the one way to process improvement nirvana. I agree that there needs to be an organizational mindset or sea change in order for acceptance of a process improvement program and there needs to be universal understanding and acceptance of the process used, but Six Sigma practitioners in general appear to be completely brainwashed and preachy in their discussions. They are tools, use them correctly and believe in their capacity to improve things when used correctly, but we need to get off the soapbox and realize they are toolsets that need to be used, they are not intended to be a religion.
>
> RES 29: Six Sigma, Lean and TQM are a mindset and a toolkit, but they are not a one way of doing things and do not need to be taught in a manner that precludes their flexible use or shuts off receiving other inputs as to how to do process improvements. I see Master Black Belts being absolutely inflexible in their training and taking a "my way or the highway approach with their students." This is absolutely the wrong thing to do. We need to look at Lean, Six Sigma and TQM as tools, the more tools you can have in your toolbox the better off you are. These are tools and processes and they are intended to make things better, not to become anyone's religion.

Since many of the companies desiring to instill complex problem-based methodologies such as Lean and Six Sigma do not already possess needed expertise in-house, they turn to consulting

practitioners who in-turn try to convince an organization to believe in the investment and its ultimate return on investment and allocate potentially significant resources.

Effective and standardized project selection. As a result of the resources required and the time it frequently takes to effect positive change, large scale problem-based methodology initiatives should be applied to meaningful projects, e.g., technically, financially, strategically, and visibly meaningful. These methodologies are rigorous and not every problem was seen to need them – an example provided was there is no need to kill a mosquito with an elephant gun, not only is it gross overkill, it makes an otherwise effective elephant gun look less effective and a waste of time. When asked about the potential for improvement of problem-based methods by assuring effective and standardized project selection, respondents replied with the following comments:

> RES 18: Six Sigma's methodology should be applied to meaningful projects (technically and financially). Not every problem requires the rigors of these methodologies.
>
> RES 26: The use of training and skills intensive problem-based methods such as Lean, TQM and Six Sigma need to align with the bigger problems and needs of the organization. Projects need to be high-impact and important to the organization to be selected. When using particular methods such as Lean, the problems need to be waste elimination or line of sight process optimization. When using methods such as Six Sigma the problems need to be the elimination of variance, both common cause and special cause variation. Projects selected for various teams need to be problems that teams members have the correct skill sets to address. But primarily they need to be projects that are important to the organization and have support at all organizational levels.
>
> RES 39: Projects need to be important projects that have financial, strategic or other positive impacts for the company. Management at all levels needs to get behind the projects and show active support. Pick the right projects, assure they have high visibility and impact to and for leaders and you'll get the level of support you need. Projects need to have impact on the P&L or at least have high levels of strategic importance. When projects are not selected based on impact you get projects that might or might not get support and are subject to losing team members.

Lean and Six Sigma training speak to the need to select proper projects but there is little in the way of standardized project vetting contained in the body of knowledge that makes up the training and certification of practitioners.

End warring over preferred methods. Concerns were expressed that there is too much infighting and warring between problem-based methodology practitioners as to which one is best. Examples such as the ongoing battle between practitioners regarding which is best, Lean or Six Sigma were provided. To some degree that has subsided with the realization that Lean is best applied to the elimination of waste, and Six Sigma is best applied to the reduction of variance in processes. This effective demarcation provided the space for the development of tools to identify waste or variance as the problem with a process and then to select the appropriate tools from either the Lean or the Six Sigma toolkit, and the subsequent merging of the methods into Lean Six Sigma. It was determined that it was better to view and try to understand all these methodologies as tools, understand when they are of use, and try to use what is, and only what is, appropriate for the issue at hand. That was seen to provide the best result the quickest. When asked about the potential for improvement of problem-based methods by ending the warring over preferred methods, respondents replied with the following comments:

> RES 2: We need less discussion of "the next best thing" and a one is better than the other mentality- i.e., Lean versus Six Sigma versus TQM versus TRIZ, etc. It's better to view and try to understand all these methodologies as tools, understand when they are of use, and try to use what is, and only what is, appropriate for the issue at hand. That way you get to a great result quickly. Additionally it is important to ensure focus is equally on the aspiration customer want or need and not just the negative customer feedback. If you view both, you tend to seek better, more innovative solutions and for example with Lean Six Sigma may in fact end up using DFSS instead of DMAIC or Lean but design a new product / service that is both Lean and of high SS quality.
>
> RES 19: Stop treating them like different religions - warring practitioners and consultants hurt the whole field. Use the right tool for the right problem. Use them in conjunction with other sound management practices.
>
> RES 37: I was part of this problem for a while. I was trained in Six Sigma and didn't think Lean had enough analytical process or rigor. As a result I spoke very critically of Lean. I knew Lean practitioners who took the same position with Six Sigma. It was usually a time and energy wasting brawl, with the observers losing confidence in both methods and in the practitioners. It was not until we started merging Lean and Six Sigma that people started to really understand how each was optimally used and gained an appreciation for the other. When we started to be trained in Lean Six Sigma we began to quickly realize how much better it was to have an expanded toolbox and to draw and use the tools as needed.

It was additionally seen as important to ensure equal focus is on the customer want or need to create and not just on negative customer feedback, moving toward building on strengths in addition to fixing problems. It was noted that when you view both strengths and problems, it is then possible to seek more complete and innovative solutions.

Assure practitioners have real world experience. Not all respondents believe that problem-based improvement methodologies are needed to improve what? But, the respondents firmly expressed that the experience of those who implement them can and should improve. It was noted that at a high level, the methodologies are less about the development and use of individual tools and more about developing and maintaining a disciplined thought process. It was uniformly believed that adequate expertise to work on or lead problem-based improvement initiatives could not be gained through reading a book or watching a demonstration. On line training was eschewed with the strong preference for classroom training interspersed practical work area applied training. Even with this preferred praxis of classroom training and work area application, it was believed that it was essential to practice the skills of project management and tools usage in a real world state for a number of years to gain the needed expertise and proficiency. When asked about the potential for improvement of problem-based methods by assuring that practitioners have real world experience, respondents replied with the following comments:

> RES 19: As discussed in other responses, I do not believe the problem solving improvement methodologies should improve but the real world experience of those who implement them can improve. At a high level, the methodologies are less about individual tools and more about a disciplined thought process and you don't gain that from books or classes, you gain it by working in the real world and trying again and again to solve problems.

> RES 28: Problem-based methods such as Lean and Six Sigma need leaders / facilitators with much more real world experience than I am starting to see. We need focus from professionals on more transactional environments as those aren't tackled as much as the engineering / product issues. There was a time before the Six Sigma body of knowledge was as well-known and published as it is now where the trainers had ample field experience. They had been there and done that. But now we are seeing a wave of professional trainers with little practical real world knowledge training people in Lean and Six Sigma and when students

> ask questions they don't have good answers and are incapable of doing any valuable or value added training in the work place in an applied state.
>
> RES 39: The Six Sigma training used to be comprised of a practicum that included classroom training and on the job training. That applied state training was probably the most important element and now it's not perceived as important and the practice is suffering. This is happening because trainers don't have the true experience to go to the operation with the student and SHOW and OBSERVE and CORRECT the students. Trainers are increasingly book and classroom bound.

Whether it is change management, team building, analytical processing, applied statistics, or any other aspect of rigorous problem-based methodologies, time on the ground using the skills was imperative for successful application. The fact that not all methodologies serve all problems dictates the need for extensive and varied praxis for skills development.

Overcoming imbedded management thinking. Respondents saw it important to understand senior leadership drivers, objectives, and concerns. Especially when problem-based methodology initiatives are first conceived and presented, it is essential to understand what they are in response to, e.g., higher than expected losses, expansion goals, difficult competitive or economic times, mergers or acquisitions, or other potentially significant drivers. If the driver is loss or entering tougher times, problem-based methodologies are frequently employed at the point of highest pain. Conversely, if the driver is market expansion or product development, the projects selected will be held to a very different criterion. Regardless of the initiative direction the driver comes from the important thing is to assure the project synchronizes with and supports strategic objectives. The experienced problem-based methodology practitioner will understand the potentials for improvement and be able to help management overcome embedded thinking if the entire management focus is one of using the methods for correcting materials losses as an example.

The problem-based methodologies are also, with their data-driven focus, effective in helping to overcome long-held embedded beliefs regarding various cause and effect relationships. One respondent described working for 20 years in a pharmaceutical plant in which

glass vial damage exceeded 5% of the vials manufactured; it had done so for the 20 years that he was aware of. Embedded management belief was that the glass vials were being damaged during the process transit during the manufacturing steps. This belief was supported by the low rejection rate at incoming inspection and the number of conveyor moves of the product during processes. When asked about the potential for improvement of problem-based methods by overcoming imbedded management thinking, respondents replied with the following comments:

> RES 17: Put more people who know the methodologies in leadership positions rather than traditional MBA's or sales or financial people. Have a well-qualified problem solving methodology integrator who can build a customized CPI effort. Management seems entrenched in the belief that you need an MBA to effectively lead an organization but that mindset is yielding just one type of leader and not necessarily one that is capable of leading and continuously improving today's dynamically challenged organizations.
>
> RES 25: We need to embed the thinking and management philosophy into the problem-based methodology and make it the way we do business. Conversely we need to embed elements of problem-based methods into management thinking and philosophy. Doing this was can meld the best of each together much like we did with Lean and Six Sigma, and TQM and Six Sigma.
>
> RES 41: I think it's just more of the same short-term next-quarter thinking that has impacted US corporations for years. We are so entrenched with making immediate gains and getting quick fixes that we lose sight of effectively building for the future and making long term improvements and gains. Management complaining about a Six Sigma project taking six months to get a fix is missing the point that the fixes are intended to be long term fixes and savings are compounded over many years. We need to break through this dynamic of short term quick fix savings are all that we should pursue and really make an investment in the future.

Teams had been deployed over the years to address the vial breakage rate, but it was not until a newly deployed Six Sigma initiative took a look at the problem and determined that the external manufacturer of the glass was stressing some lots more and other and the heating and cooling of the reporter's own manufacturing processes exacerbated the stress weaknesses. In this case, the data from the rigorous problem-based methodology overcame years of embedded management belief.

Building the body of knowledge. Respondents described the problem-based methodology body of knowledge for Lean and Six Sigma as details describing the stepwise project management and analytical process, tools utilized, and project reporting schemes, but

there was little in the way of information describing change management techniques, team building and managing, or other necessary project management methods or tools. It was noted that the statistical and other analytical tools have been around for many years and the Lean and Six Sigma practitioners had for the most part repackaged them in a stepwise and rigidly applied manner. Concern was expressed that neither Lean nor Six Sigma body of knowledge seemed to have much of a living and evolving aspect that many practitioners seemed content to learn the analytical process and tools usage and apply their expertise while waiting for the next new big thing – the next Lean or the next Six Sigma. It was pointed out that the interpersonal part of problem-based improvement technique interpersonal dealings, e.g., mentoring, continued training, understanding lessons learned, teaching influencing without direct authority, and setting-up and running a problem-based method initiative that has more variation in it that the problem the solver is trying to solve. Developing and maintaining a growing body of knowledge that could be used for training refresh as well as new training and this would keep the lessons learned and new interpretations up to date.

It was presented that within the DMAIC framework, the Improve and Control phase we needs much more attention paid to the human factors involved in the process. Respondents believed they should be assessing acceptance and motivation in order to effectively continue with an organization's ongoing improvements and information gained from these assessments could be added to the body of knowledge. When asked about the potential for improvement of problem-based methods by building upon the body of knowledge, respondents replied with the following comments:

> RES 4: What seems to be the Six Sigma and Lean focus on methodologies and flow of the process and emphasis on the hard tools are just that, tools, not every tool is used in every situation. We need to develop and use soft skills to talk to sponsors, they don't know the tools, they need to know and trust the user of those tools. We need to also get much better at motivating team members and managing change and currently the Lean Six Sigma body of knowledge is very light on both.

> RES 13: Our problem-based methodologies seem to be static relative to their body of knowledge. I don't see the body of knowledge for Six Sigma or lean changing to at this point to include change management or some of the interpersonal stuff that we all know is lacking. I figure that people like me and you will out of necessity change it to include missing elements and once it's changed and people figure out that it works better and they make more money and have a chance to get in on the cutting edge of change the body of knowledge will expand like a vacuum and suck it in.
>
> RES 27: That to me is the biggest irony of all. Our Lean Six Sigma continuous improvement body of knowledge is not continuously improving. How do we justify and rationalize that? I can't. I think that the reason that it's not more of a question and an issue is that it's already so complex and layered with process steps and tools that most people are too challenged just learning the stuff that's there, that they do not see the sameness from year to year of the methodologies and their limitations. The people and engagement obstacles exist and we're basically told to power through it. That works until we get to a point that management is not supporting us or we get a poorly selected project or any other potentially derailing situation and then we don't have the interpersonal and team skills that we'd need to overcome the obstacles.

Bringing in more balance between a deficit and strengths focus, and never letting the problem-based methodology become the main focus of a vision for the future was thought important as the vision should be more of a bigger and more inspiring objective or strategy. Two respondents believed that the body of knowledge needed particular growth and emphasis in project increase speed and agility and documented consideration of the impact on other processes up and down the chain. A respondent recommended that the body of knowledge be expanded to stress inclusion of non-statistical methods aimed at helping improve get team dynamics to make information gathering more effective. Continuously adding tools and expanding the scope of the processes to include the emotional as well as intellectual aspects of problems were also thought important additions to an evolving body of knowledge.

Frame objectives in the positive. Respondents recommended problems to be addressed in the positive before starting the process. Whether or not the problem could be actually addressed by building upon the flipside of strength was not viewed as important a project launch point as was describing in a positive manner the need to work the problem and why it was important to the organization. A recommendation was made to begin problem-based

improvement methods by first motivating participants by visualizing the ideal state and asking participants what that improved state would do for them personally and the business as a whole. When asked about the potential for improvement of problem-based methods by framing objectives in the positive, respondents replied with the following comments:

> RES 21: It is essential that the Lea or Six Sigma or TQM facilitator develop positive problem stating before starting the process. He or she must visualize the ideal desired state in a motivational way and keep that as the team's True North during the project.
>
> RES 36: A Lean or Six Sigma facilitator must continuously add tools and expand the scope of the processes to include the emotional as well as intellectual aspects of problems. The emotional part is primarily getting teams to energetically and completely approach the problem and a bit part of this is the team leader's ability to describe the objective in positive terms. Regardless of whether or not you are approaching a completely broken process intending to fix it, you will be much more successful if you describe it as building a new process from the points of excellence that exist in the current process. You can't damn or shame the existing process without damning and shaming those who worked in it.
>
> RES 43: I like the six sigma approach of the problem solving team - with a facilitator skilled in the tools of problem solving leading a team of individuals with the correct education/experience to understand, evaluate and solve the problem - then the documentation of resolution with objective evidence to support. But all of that works best when there is an optimistic and enthusiastic team which is the result of its leader being as optimistic as possible in describing problems as opportunities and approaching the work as such. This is sometimes tough to do because if it's not approached honestly people will see though it and resent the positive description.

Working a problem by building upon an offsetting strength was thought by the respondents to be a desired but difficult to achieve state.

Tailored communications. Communications introducing and supporting a problem-based methodology for change were looked by respondents in a three dimensional grid. First, there needed to be uniform introductory communications to all employees describing the initiative, why it was important, who was involved, the planned approach, training requirements, and a general timeframe for starting and for incremental milestones. Next, there had to be stratified communications for different levels in the organization with management getting more description of the why's and how's along with objectives and support needed, and direct team participants getting much more of the how and details of what they were expected to accomplish.

When asked about the potential for improvement of problem-based methods by developing and employing tailored communications, respondents replied with the following comments:

> RES 7: Problem-based improvement initiatives can be improved in many ways, but most importantly, a documented baseline, standard approach that is communicated throughout any one organization. From there, improvements can occur. Relative to communications, each level in the organization needs a different communication, e.g., senior leadership needs to know what is happening, the timelines and cost / savings impacts, middle management needs to know what the next few months entail and how they are progressing and what is needed / expected from them in setting up and driving the initiative, and employees need to know generally what the overall program is trying to accomplish and specifically what's needed from them today and tomorrow.

> RES 10: I have found it necessary to have different but connected messages for different levels of the organization. This includes formal messages and elevator speeches. Different messages resonate with different audiences. They have to be connected though. They can be like different facets of the same jewel but you need to know who needs what information, when and in what format.

> RES 39: CEOs want to hear a high level why do it, what's the timing of it, what's it cost, which resources are needed and what is the cost benefit of doing it versus not doing it. Other leadership needs to know what's going on, how they support it and what's in it for them. Project team members need to know what they have to do, how to do it, and what the expectations are.

In addition to the stratified level-specific information, the information theme would change over time to include success stories and next step. It was also recommended to keep focus on the technical aspects of projects as the schedules for team participants and apply more motivational soft-skill types of communication to the sponsors / managers who do not actually need to know how or when to use the various tools. This was not looked at as an absolute, it was presented only in terms of primary focus using the 80:20 rule, i.e., for project participants apply 80% technical communication and 20% motivational communication, and for sponsors / managers to reverse the ratios.

Analysis of Strengths-based Findings

The analysis of strengths-based findings is broken into five primary sections: 1) benefits of using strengths-based methods, 2) weaknesses of using strengths-based methods, 3) strengths-based limitations, 4) unsuccessful use of strengths-based methods, and 5) improving strengths-based methods. Each section is developed from the inputs of SMEs responding to open-ended questions. Redundant input was summarized and unique input was considered and included

when consistent with the intent of the question. Input was not selectively included or excluded based on its alignment with specific beliefs or themes. The researcher rigidly applied objectivity and openness in the recording and interpretation of subject matter expert input.

Benefits of using strengths-based methods. Respondents determined that the primary benefits derived from using strengths-based methods were employee engagement and the fact that it's seen as generative and initiating new change. It builds momentum and trust in participants and generates positive dialog as it creates a shared vision of the future. Action initiation is relatively quickly arrived at and it develops and delivers in an optimistic mode for participants. Participants report an organizational energy when using methodologies such as Appreciative Inquiry (AI). They quickly come to agreement relative to those things that are truly important to the organization. Changes developed and implemented using strengths-based as seen a lasting improvements and many of the revelations garnered from the methodology are unexpected, indicating new understandings are developed and new vantage points evolved. With strengths-based approaches the optimistic and engaging interactions do not devolve into negative blaming energy, which depresses organizations. Learning is enhanced and relevant positive changes in the culture are observed and experienced. Leadership becomes a guiding and energizing force with strategy and vision setting at its core versus evolving into coercive forces sapping organizations of their spirit and enthusiasm.

Discovery of new ideas and approaches. Respondents were uniform in their belief that strengths-based methods help to uncover new ideas, create energy, commitment and engagement, as well as helping participants increase their level of respect for each other. The strengths-based methods also help individuals grow within the context of the change in their organization. The output of the strengths-based methods initiative activities are frequently unexpected by the

participants in that much surfaces in the discussions that might not otherwise become a discussion point. When asked about strengths-based methods capacity for the discovery of new ideas and approaches, respondents replied with the following comments:

> RES 47: Strengths-based methods help uncover new ideas, create energy, commitment and engagement as well as respect to each other. They also help individuals grow within the context of the change in their organization.
>
> RES 50: They start to shift the world-view that clients have. They challenge dominant paradigms, e.g. the deficit mode of thinking and acting. They offer hope where before weakness and problems were dominant. They offer ways to explore, plan and deliver which make the most of people's talents.
>
> RES 61: The results of AI are usually "unexpected" by the client - or at least by those on the "coal-face"/ customer interface.

As participants discuss past and current individual and organizational strengths, they saw excellence in their own unique perspectives, and the discussions tend to be very enlightening as they move toward common understanding. Once common understanding of the strengths to be resurrected and built upon is gained, the engagement and knowledge of the participants provide for creative and positive development of action plans and implementation schemes.

Creates long term lasting changes. Respondents describe an impact from undertaking a strengths-based method initiative is that they create long-term changes that have staying power. It was observed that changes borne from the pursuit of excellence tend to be perceived by participants as something they valued, created, and don't want to lost, becoming protective of the change and assuring its lasting incorporation. When asked about strengths-based methods capacity for creating long term lasting changes, respondents replied with the following comments:

> RES 47: Strengths-based methods yield long term change that sticks. They can also change one's culture to the positive in the long term.
>
> RES 53: When people "get it" they are energized and become very creative. If sustainment is addressed in the delivery stage the effects are likely to remain.
>
> RES 70: With AI building and implementing a co-created vision of shared future I find people more committed to assuring the change is lasting than if an individual or a team developed and implemented a system fix. Once people determine that their best case structure, that they participated in developing, is in

> place and truly represents their collective design efforts, they are very reluctant to allow future change, especially if it is perceived regressive in nature.

With the strengths-based methods the changes often were cultural which added to the lasting nature of the change. It was reported that those previously using problem-based methods tended to view their past corrective efforts as being patches cobbling together fundamentally broken processes and systems while they looked as their strengths-based methods as bringing long needed improvements.

Starts from a shared vision. Respondents stressed that strengths-based methods assure participants are working from a shared vision. And, one respondent believed that once the shared vision was achieved, it did not matter a great deal which tools were, as long as they are used in a strengths-based way. When asked about strengths-based methods capacity for creating and starting from a shared vision, respondents replied with the following comments:

> RES 47: AI is great for creating space for people to think and think together building on the expertise of all in the room - level playing field valuing many contributions. This level setting and joined input assures starting from a shared vision normalizing expectations.

> RES 55: Strengths-based methods unite people in what they want to accomplish together, and provide a sense of being competent and in control, and the excitement to want to jointly aim higher.

> RES 68: AI establishes working from a shared vision. After that, I don't think that specific tools matter all that much, as long as they are used in a strengths-based way. Maybe that is what Jane is saying in her ongoing friendly debate with Bernard. I think that Bernard is saying that some tools are more effective than others to help bring the shared vision into reality, and clients often need a tool/s at the Design stage. I agree with that too and think that the Quality side often has the better tools for Design, AS LONG AS they are used from a strengths-based mindset and don't slip into assessment and blame-focused problem solving

One respondent stated that some tools are more effective than others to help bring the shared vision into reality, and that clients using strengths-based methods often need tools at the Design stage of the AI 4D process. It was further stated that as long as they are used from a strengths-based mindset and don't slip into assessment and blame-focused problem-based perspective, the problem-based methods are often the better tools for the AI Design phase.

Dominant paradigms are challenged. Several respondents spoke to their observation that strengths-based methods shift the world-view of their clients. Strengths-based methods were said to challenge dominant organizational paradigms, e.g. the deficit mode of thinking and acting. It was observed that strength-based methods offer hope where before weakness and problems were dominant, and in doing so they offer ways to explore, plan and deliver which make the most of people's talents. When asked about strengths-based methods capacity for challenging dominant paradigms, respondents replied with the following comments:

> RES 47: I have witnessed AI innovations that did not set out to overtly challenge existing organizational and process paradigms, but in which the resultant change was such an improvement that the existing paradigm was stood on its head and shown ineffective. This has even been the case when those who had some vested interest in the status quo got energized and help build the new paradigm. This is another testament to the power of co-creation.
>
> RES 50: The very nature of AI is the co-creation of a better work environment. The prior state is the existing paradigm and all work done to improve it is a challenge. The difference with AI is that it's a collective challenge with the intent of identifying what's done well now and in the past and building upon it.
>
> RES 68: Any improvement effort challenges currently held paradigms. Where I see the difference is that usually problem-based initiatives have no respect for the current and past, they usually clean sweep and begin fresh and this loses institutional knowledge and shows disregard for past efforts. AI by its structure and approach challenges participants to see or remember points of excellence and then design a path to make that the norm. It does not necessarily clean sweep and throw away what's good, and it recognizes excellence and contribution, both of which are seen as positive and energizing by participants.

One respondent took exception to the perspective that problem-based methods relied on facts and data where strength-based methods relied on the participant's opinion, stating that the strength-based methods process of coming to a shared vision provided as much fact-based truth as any other method and potentially more because truth is based on common understanding and vision.

Positive focus propels teams. Using problem-based methods, teams can become bogged down in what they haven't accomplished and what isn't going well. Focusing on core strengths, hopes, and aspirations moves teams to a better place during the process of improving a business or other entity. The positive focus builds energy while work is being done versus sapping it by looking at how much further the organization still needs to go. With a focus on the power of

dreams, not on the problems you are trying to avoid, a sense of optimism move the teams forward celebrating incremental successes and knowing that each increment achieved has made the business stronger. When asked about strengths-based methods capacity for its positive focus to propel teams, respondents replied with the following comments:

> RES 51: AI builds momentum and builds relations. It opens for hidden strengths in the group or person, builds confidence and a 'Yes we can' mentality. It builds trust and in that way releases energy that can be used constructively.
>
> RES 62: Through working with strengths instead of problem solving I see a lot of energy in the team that starts working with this methodology. There is more action, more commitment, more self-esteem, more power, more trust.
>
> RES 75: AI doesn't put people on the defensive. It draws from their natural skills and strengths and creates a bridge from previous successes to current projects/goals. It gives structure to coaching / consulting / training sessions, has validated research to back it up, and it generates excitement, enthusiasm, buy-in, and most importantly ACTION! Overall, it just feels good so people enjoy the process and buy into developing methods to create what they want more of in their lives and/or organizations.

Strengths-based methods have a focus on the positive and on identifying and building upon excellence. They increase morale by focusing groups on their opportunities for betterment, decreasing existing cultures of blame, and improving performance, team development, community development, and improving profits. Moving away from the deficit-based activities which have depressing impacts on an organization's morale toward an environment stressing the positive draws people in versus driving them away. Respondents described a compounding effect in that positive energy begets positive energy.

Identifies value in the system. Strengths-based methods identify what is valuable in the system, creating a shared vision of possible future desired states and then actualizing the shared vision. When asked about strengths-based methods capacity for identifying value in the system, respondents replied with the following comments:

> RES 47: AI is the best improvement methodology that I have encountered for identifying what is valuable in the system, creating a shared vision of possible future desired states and then actualizing the shared vision.
>
> RES 61: AI focuses the organization or person on their best and moves forward from that point. It first finds value in the current or the past and once determines excellence and attaches value to it, work to make

> it the norm. This creates positive energy needed for positive change. The best way to describe the feeling this gives team members is Exhilaration!
>
> RES 73: The first time I participated in an AI initiative I was hooked! We started with the identification of what we do well and have done well in the past and then proceeded to recreate and improve on that. It was the most fun I ever had working to improve something. We started to immediately see the good in what we did and where we wanted to keep and build upon the good parts of the business.

It was observed that frequently the approach taken during problem-based methods initiatives does not provide for observation and identification of what's working well and rather than building upon strengths tends to take a scrap and rebuild approach. The respondent pointed out that while there are instances in which a system or process is so broken that it needs to scrapped and rebuilt, to do that as a matter of course tells the organization that they do not do anything right which depresses the organization. The net effect of scrapping and rebuilding is frequently that those with true understanding of the process or system further lose heart when they see elements that actually operating very well fall to the wrecking ball of change.

Stimulates creativity and innovation. When people "get it", they are energized and become very creative. If sustainment is addressed in the AI Delivery stage, the effects are likely to remain. When asked about strengths-based methods capacity for stimulating creativity and innovation, respondents replied with the following comments:

> RES 48: In my country and in the region, organizations are rarely aware of their strengths. They are much more eager to invest lot of money and their trust in outsiders, consultants help and in hiring professionals for higher managerial positions, rather than to build their own, well assessed and continuously develop potentials (in practice and through carefully chosen training). AI is particularly helpful in the initiation of new change, from carefully crafting the question that reflects a desire for change to developing creative and innovative change, to initiating the concrete, projects for the change implementation with the strong ownership. I particularly love the side effect of six-freedom creation during AI intervention.
>
> RES 67: I have not before seen the engaged creativity and reaching for the stars that I see in well done AI initiatives. Some of the recommendations and ideas coming out of the sessions go far beyond just the output of synergistic thought; they are truly innovative and simply new thought and now ideas. Wow!
>
> RES 81: After an AI summit I have had senior leaders and managers come up to me and say, "What happened? I never heard some of those people open their mouths before and they came out with fantastic and creative ideas! How do I keep that energy and openness in place after you leave?" I tell them that it's simple put their ideas in place (act on them and give them credit for them) let them co-create a new organization. And then ask them again and again for their ideas.

Strengths-based methods were said to build high levels of engagement, commitment and optimism while stimulating creativity and innovation, all of which has an impact of further accelerating a system's capacity for change. Strengths-based methods build relationships and good will, which supports implementation and tills the soil readying the organization for additional creativity and innovation. The compounding effect of using strengths-based methods is seen in the positive engagement of participants and each success further fuels the fires of creativity and innovation.

Unites people and builds goodwill. Strengths-based methods do not put people on the defensive. Strengths-based methods draw from individuals and organization's natural skills and strengths and create a bridge from previous successes to current projects and goals. It was stated that strengths-based methods give structure to coaching and consulting training sessions, have validated research to back them up, and generate excitement, enthusiasm, and buy-in. When asked about strengths-based methods capacity for uniting people and building goodwill, respondents replied with the following comments:

> RES 48: AI is effective for creating space for people to think and think together building on the expertise of all in the room. It provides a level playing field valuing many contributions.
>
> RES 53: AI helps by increasing morale, focusing groups on their issues, decreasing culture of blame, improving performance, team development, community development, and improved profits.
>
> RES 58: AI in particular builds momentum and builds relations. It opens for hidden strengths in the group or person, builds confidence and a 'Yes we can' mentality.
>
> RES 75: When looking at AI and its output, it doesn't put people on the defensive. It draws from their natural skills and strengths and creates a bridge from previous successes to current projects/goals. It gives structure to coaching/consulting/training sessions, has validated research to back it up, and it generates excitement, enthusiasm, and buy-in. Overall, it just feels good so people enjoy the process and buy into developing methods to create what they want more of in their lives and/or organizations. It builds trust and in that way releases energy that can be used constructively.

A respondent said of using strengths-based methods that overall, it just feels good so people enjoy the process and buy into developing methods to create what they want more of in their lives and/or organizations. Strengths-based methods unite people in what they want to

accomplish together, provide a sense of being competent and in control, and create the excitement to want to aim higher.

Weaknesses in strengths-based methods. Strengths-based improvement methodologies are perceived to have their own set of inherent weaknesses, key of which are in effectively determining the return on investment (ROI) gained through their implementation. This also inhibits the capacity for strengths-based initiatives to find a fit in the hardscrabble business culture. Ill prepared facilitators are not making the business sell any easier and potentially contribute to the perception that strengths-based modalities are soft side human resources "touchy feely" endeavors. With strengths-based approaches to improvements having their basis in advanced academic research and consulting provided by academicians the jargon and descriptors used are not necessarily clearly understood by rank and file employees. One of the means of applying large strengths-based initiatives is through the Appreciative Inquiry summit. These summits, while typically effective in developing improvements, are often beset with the deleterious impact of management teams having unrealistically high expectations of immediate and dramatic change emanating from the summit.

Problem-based methods are so universally recognized and embraced by organizational leaders that the "sell" difficulties are compounded via their non-fact based comparisons. One of the challenges faced by strengths-based practitioners in found in the general disdain of and reluctance for developing strengths-based "processes" or "tools." A potential result of this is the perceived last of system or process for the critical Appreciative Inquiry stages of Design and Deliver (D&D). D&D lacks rigor of having repeatable analytical tools or process steps and, as a result, occasionally the wind falls out of the AI initiative's sails at these steps, with practitioners and participants wondering how to actually Design and Deliver effective change. Although

strengths-based approaches to improvement are engaging and upbeat, culture changes take time, there is an expectation of "quick fixes", and they are not seen as being effective in resolving crisis situations. Concerns exist that no matter how strengths-based initiative are conceived, there is the potential that management would or could misapply the input gained in the discussions to the detriment of the organization and its personnel.

The question frequently arises in strengths-based initiatives of, "But what about the real problems?" Not all organizational problems can be voiced in the positive and not all strengths can be enhanced and expanded in a manner to effectively encroach into undesired negative space. Coinciding with the thought that strengths-based approached ignore problems is the concern that they also potentially either do not recognize or they ignore threats and weaknesses.

Not seen as fitting hard business culture. Respondents were mixed on this point, several accepted the position that strengths-based methodologies were looked upon as soft-side approaches and would have a difficult time gaining traction in the business community, but others desired more academic studies demonstrating the potential return on investment from strengths-based methodologies. The general sense expressed was in the absence of positive data to the contrary, businesses would not accept the approach. It was also noted that the language of strengths-based methodologies is primarily taken from academic studies, organizational development, and psychology, with the understanding that it is almost a self-fulfilling prophesy that when the language used is associated with soft-side approaches, the methods themselves will be painted with the same brush. Change the language and change the perception. It was also noted that the strengths-based methodologies as applied to businesses are fairly new and it might just represent where strengths-based methodologies are in terms of development. According to a respondent's experience the language of AI, which is one of the main tool for successful

implementation, needs to adjust to the hard business culture. The same respondent stated that strengths-based methods stop in their full potential in project phase. When asked about strengths-based methods being perceived as not fitting hard business culture, respondents replied with the following comments:

> RES 49: There is a perception that AI is not a good fit for a hard and driven business culture, and I wish there were more case studies that are relevant to the business sector and if possible with robust evaluation over time. It isn't particularly a weakness but rather a manifestation of where AI is in terms of its development WW.
>
> RES 52: When I speak to business leaders about their stated organization's needs for cultural or operational improvements they inevitably look doubtful and concerned regarding the effectiveness of gathering people to discuss what to them appears recollecting the good old days and trying to bring them back. They keep trying to redirect the conversation to how am I going to help them identify and fix their problems. It is very difficult for the average business leader to have faith that the AI 4D process is other than an HR driven feel good exercise.
>
> RES 65: According to my experience, the language of AI, which is one of the main tools for successful implementation, ought to be adjusted to the hard business culture. Part of the issue with AI being viewed as some sort of academic OD initiative is its jargon sounds far too academic and out of step with business needs.

It is believed that AI takes time and the full involvement of participants, and they cannot be led through the process on the intellectual level only. It was stated that the managers and owners roles and involvement should be considered and prepared very carefully as they are pivotal to successful strengths-based initiatives. It was believed that there still needs to be additional research done in the field. This needs to include having the strengths-based methodologies and their potential for return on investment be more clear and establishing research around people and projects for when it works best and when a different approach may fit better.

Not a quick fix. Most organizations do not have the luxury of extensive time to plan their changes, they are responding to the immediate needs presented by either opportunity or threat. Any way viewed though, strengths-based methodologies are not a quick fix. They take time and most of these large-scale change intervention methodologies require two or three days to take a

group through the whole process. Many organizations cannot or will not invest the time and the money, especially if they have not extensively used strengths-based methodologies in the past and become accepting of their potential for contribution. It was pointed out by a respondent that Marvin Weisbord, founder of Future Search, states that it is not the total time participants spend together that makes the difference it is the "soak time" with Future Search taking three days with two overnights scheduled for the "soak time." Cultural changes, which arguably can be best addressed using strengths-based methodologies, themselves are never quick changes or fixes. When asked about strengths-based methods being perceived as not being a quick fix, respondents replied with the following comments:

> RES 51: Most organizations do not have the luxury of time to plan their change. As noted in #15, Charles Elliott states that AI [or other strength based improvement methodologies] is not a quick fix. It takes time. Most of these large scale change intervention methodologies require two or three days to take a group through the whole process. Most organizations cannot invest the time and the money. Marvin Weisbord, founder of Future Search, states that Future Search takes 3 days with 2 overnights scheduled for the "soak time."
>
> RES 67: The perception, which I think we strength-based practitioners contribute to, that things automatically change after a Summit. I think that may be an artifact of the contracting process--i.e., it's not easy for an organization to commit to a Summit, and it's often seen as the capstone event. Change even driven positively through AI takes time. Organizations are like large ocean liners they can change direction but usually not too quickly, and, like ocean liners, need a steady well piloted hand at the helm.
>
> RES 77: AI interventions feel great at the time but need real courage to continue using them and overtime shifting the overall culture of an organization.

It was pointed out by one respondent that culture is impacted significantly by attitudes. Attitudes can take a great deal of time to form being the additive result of many different events and experiences If the mission and basis of cultural change is a mass change in attitude, change will not happen quickly regardless of the intervention applied. In this respect, strengths-based methodologies could well be adversely impacted and bound by the constraints inherent in their chosen and best-fit application. It was pointed out that there is a perception which strengths-based practitioners contribute to, that things automatically change after an AI Summit. This is potentially an artifact of the contracting process where it's not easy for an organization to commit

to an AI Summit, and it's often perceived as the capstone event in which the output is the desired state.

Starting from a negative bias. It was pointed out that the selling of the use of strengths-based methodologies is an uphill battle because many if not most people are conditioned and trained to believe that you can only make improvements by identifying and solving problems. In this respect, there is a great deal of inertia and resistance to overcome when trying to initiate strengths-based methodologies. From early schooling, people are trained in scientific methods applied to problem solving and most analytical methods are attuned to problem solving. A respondent stated that strengths-based methodologies can be dismissed as organization development theories having little real world application. He then noted that business leaders can be won over with successes, but it is very much a challenge getting the opportunity to engage the organization. When asked about strengths-based methods being perceived as starting from a negative bias, respondents replied with the following comments:

> RES 53: Not a weakness in the AI methodology, but a weakness in the fact that there are still a lot of people that thing you can only solve a problem by paying a lot of attention to it.
>
> RES 67: The introduction of the AI process is critical - people remain skeptical of 'non problem based models' - and it often that they move forward in the initial stage as a leap of faith - either in the way the description causes them to feel hopeful and/or in me as a credible advisor - rather than them trusting that they will be addressing major concerns. The practitioner's ability to clearly explain the value add in this unfamiliar process become critical to its initial adoption.
>
> RES 80: The return on investment from AI initiatives is not well documented or quantified. There still needs to be some additional research done in the field. Having the ROI become more clear and establishing research around people and projects for when it works best and when a different approach may fit better would also help. Also, it's becoming a buzzword now and it seems that people are saying they practice it but don't have the skills or background in it to truly understand it.

A respondent pointed out that prior to 1995 with the development of the four D process, AI was more difficult to describe to a client. With it being more difficult at that point to describe, it was not easy to persuade a client to "trust the AI process" without their having participated in several workshops and seen the results.

Courage is required to sustain. Respondents stated that AI Summits and other applied strengths-based methodologies create engagement and excitement and feel great at the time but need real courage to continue using them in the long haul for which is required for changing the overall culture of an organization. Long-term cultural changes require changes beyond changing employee perceptions and attitudes. Culture is also constructed by the way organizations do things and function. When asked about strengths-based methods requiring courage to sustain, respondents replied with the following comments:

> RES 63: AI takes time and full involvement of participants. They cannot be led through the process on the intellectual level only. It is not a rapid transformation, change comes but it comes slowly, too slowly for some. It takes a strong organizational will to see the process through.
>
> RES 70: Like any initiative that people are unfamiliar with and that seems out of synch with routine approaches, AI will have its share of doubters and those hoping to see it fail. With the slowness of even effective transformational change in organizations the lack of fast change can be grabbed up by doubters as indication of failure. AI practitioners need to be prepared to weather some storms along the way.
>
> RES 80: AI is not a process that says, "Here's the problem, here's the fix, go do it and you'll be OK." AI is a mindset that takes a cultural sea change to incorporate. The neat thing about it is the cultural change required to accept AI, helps AI change the culture. AI done correctly can be a self-fulfilling prophesy in this regards, but regardless, it will take some time and there will be challenges of the AI process along the way, AI facilitators need a basic nature of wanting to help, logic and passion, a long view of the future, and nerves of steel. Having a thick skin helps.

When the desire for cultural change starts to point to process or structural changes, the change initiative runs headlong into turf battles, vested and entrenched interests, and the true-believers that adamantly believe the status quo is correct and became the status quo through trial and error and effective evolution. Courage and conviction are essential for the development, implementation, and maintenance of long-term positive cultural change.

Not useful in a crisis. A respondent pointed out that in her experience strengths-based methodologies are most effective when working with a system that is already performing at a level of even minimal effectiveness. She stated that as managing director in a large consulting firm, she often becomes responsible for offices that were not performing at a minimal standard

and found that strengths-based methodologies were not effective and more traditional methods were warranted. When asked about strengths-based methods being not useful in a crisis, respondents replied with the following comments:

> RES 47: Strengths-Based Improvement Methods, in my experience, are most effective when working with a system that is already performing at a level of even minimal effectiveness. As a managing director in a large consulting firm, I often became responsible for offices that were not performing even at a minimal standard. SBIM were not effective and more traditional methods were warranted.
>
> RES 67: The method is not usable in crisis situations, although Cooperrider says so... (see his Nepal case!)

Becoming a buzzword. A respondent expressed concern that strengths-based methodologies and their terminologies were becoming buzzwords and people are saying they practice it, but they don't have the skills or background in it to truly understand it. She expanded her comments to say that too many people who do not invest in their development as practitioners with it appearing that those who read a book or attended an event are far too prevalent. Then, they fail to embody the principles of strengths-based transformation and are jumping on the consulting bandwagon. At the least, this may have a diluting impact on the field and its successes. When asked about strengths-based methods becoming a buzzword, respondents replied with the following comments:

> RES 49: AI is poorly understood (often seen as OD light or too touchy feely), far too many people who do not invest in their own development as practitioners (those who read a book or attended an event are far too prevalent) and fail to embody the principles of strengths based transformation, and inability of practitioners to be able to reframe their discussion of strengths based methods into the language of clients (so they seem to be talking some strange tongue). AI now that it is getting some applied bandwidth and publicity is starting to become the latest buzzword for people who don't take the time to understand or apply it correctly. The downside of fame I suppose, shallow copycats.
>
> RES 70: At first I was happy to hear Appreciative Inquiry being talked about more, but then I really started listening to people's description and supposed usage and decided that most of them not only don't have a clue as to what it's about and how to apply it, they don't really care to learn. It's easy to learn a few combinations of words and claim to be a practitioner but very challenging to actually gain the necessary proficiency.

It was also observed that there seems to be an inability on the part of practitioners to reframe their discussion of strengths-based methods into the language of clients to the point they seem to the potential client be talking some strange tongue.

Misinterpretation of uses. Two respondents worried that strengths-based methodologies can be misinterpreted and used to manipulate staff particularly if criticisms of the organization are reframed by power authorities as a lack of commitment to a "happy organization." AI can be misinterpreted as a feel-good methodology where, in fact, when it is used effectively with committed staff it can unleash a powerful transformation of the organization. When asked about strengths-based methods being susceptible to a misinterpretation of their uses, respondents replied with the following comments:

> RES 67: Strength-based methodologies can be misinterpreted and used to manipulate staff particularly if criticisms of the organization are reframed by power authorities as a lack of commitment to a "happy organization".
>
> RES 74: AI can fail miserably when it is used only as positive thinking with a possibility of building taboos and hidden agendas.

This takes very careful and courageous planning to assure the stage has been effectively and appropriately set in advance of initiating the strengths-based methodologies.

Threats and weaknesses are framed away. A respondent expressed concern that occasionally there exist real finite problems that need to be seen for what they are, analyzed, best case fix evaluated and fixed. He was concerned that real threats and weaknesses are potentially reframed out of existence as the positive reframing as strengths-based methodologies are initiated.

> RES 51: I am concerned that real threats and weaknesses are reframed out of existence. Appreciative Inquiry can be misinterpreted as a feel-good methodology where, in fact, when it is used effectively with committed staff it can unleash a powerful transformation of the organization. This takes very careful (and courageous) planning.
>
> RES 69: Occasionally there exist real finite problems that need to be seen for what they are, analyzed, best case fix evaluated and fixed and AI would not necessarily be the best methods for that.

In addition to the potential negative impacts arising from reframing treats and losing visibility of their presence and significance, a concern was expressed that real problems that impact an entity undergoing AI transformation might not be handled as appropriately as they would via utilizing a problem-based methodology.

Strengths-based methodologies limitations. Respondents were adamant that the effective use of strengths-based methodologies required the predicate trusting of the process to yield effective results, much of this emanating from the fact that in process, strengths-based approached can appear very disorganized and disjointed. Effective training, mindset, and approach of the facilitator were also seen as an imperative for successful strengths-based initiatives as one of the primary concerns expressed by the respondents was over inconsistent and incomplete usage of the methodologies. Getting leadership onboard early in the process and keeping them engaged was an imperative, and this included leaders living it post-AI event, and overcoming middle management fears of losing control and issues being raised that could embarrass or otherwise adversely impact them. The lack of structure and formalized process concerned many respondents, with them specifically raising concerns regarding the lack of design tools, lack of standardized approach, and AI's frequent lack of providing concrete fixes.

Problem-based methodologies were pointed to in solving AI's lack of design tools, with a suggestion by several respondents that Lean Six Sigma could provide the tools and rigor to aid in the design phase of AI initiatives. Critical thinking in strengths-based initiatives was perceived by respondents to be lacking, but this is potentially an interesting flip side to the engaging openness of AI summits. It was difficult in the responses to specifically understand the concerns regarding lack of critical thinking except to interpret them as being a statement of concern that in free flowing generative openness and engaging dialog, there is not ample time for

reflection and deeper thinking, especially deeper thinking aided with rigorous analytical tools and processes.

Limitation 1. Strengths-based methodologies are not perceived to be effective in crisis situations or when processes or systems are completely broken. In urgent situations when time is of the essence and defined observable problems exist, it is perceived as more appropriate to use problem-based methods for their resolution.

Limitation 2. Strengths-based methodologies do not present themselves as quick-fix tools or approaches. Strengths-based methodologies are more appropriately used for long term organizational improvements that have cultural impacts and need to return to past excellence or expand upon current points of excellence making them the norm, neither of which are short term quick fix approaches. Strengths-based methodologies bring participants together in shared dialog and vision and are capable of turning the ocean liner's direction for organizational change and improvement but this is accomplished incrementally and at a slower pace than might be initially desired by participants.

Limitation 3. Strengths-based methodologies have a challenge being accepted by businesses, which out of necessity deal in return on investment, apply tried and true approaches, and are reticent to venture into the unknown on faith. Many related factors are contributing to this uphill sell for strengths-based methodologies., These include the lack of established demonstration of return on investment, the soft-side academically oriented organization development, and psychologically based language of strengths-based methodologies can push business people away.

Limitation 4. Strengths-based methodologies are not defined as having specific applications and as such could be applied inappropriately to problems in manufacturing or other

areas where the issues are borne of variance or waste in which there exist adequate problem-based methodologies and tools to quickly and effectively address them. Strengths-based methodologies have a place and that place needs more research and analysis to describe the attributes and characteristics of situations that call for their use. At this point in time, there is confusion as to the most effective methodology to use in different situations.

Limitation 5. With the exception of the AI 4-D cycle, there were no processes described by the respondents to follow for the execution of strengths-based methodologies. While the AI 4-D cycle has stages, potentially a critical stage to get right is the Design stage. The participants in this study were not aware of any tools to be used to facilitate the design of the new desired state.

AI practitioners are beginning to look to problem-based methodologies for the tools and analytical rigor needed to design desired future states. Even the founding father of Appreciative Inquiry has been quoted as eschewing developing process steps for AI. With this approach, strengths-based methodologies are left to those already "in the know" relative to the psychological and organization development foundations and practices. It is inconsistent and impractical for AI practitioners to criticize future consulting and internal business practitioners for their efforts to read about and apply the AI 4-D methodology as a "process."

If AI does not develop readily understood process steps and tools, it may be in the hands of academics and practitioners lucky enough to have been placed in a position of tutelage by an experienced and theory oriented practitioner. The result may be that AI is seen as a fringe academically-driven series of phases that can only be applied by an experienced practitioner who himself feels his way through situationally dictated options to an outcome. Having no clearly described and readily comprehended process steps leaves AI in the hands of a small number of

people destined to situationally find their way as they move from encounter to encounter. An "I'll know success when I see it and when the organization says it feels right" approach destines AI to a no traction, no widespread adoption future.

Unsuccessful uses of strengths-based methodologies. The respondents had as their most impactful needs to assure more successful strengths-based initiatives the related concerns of setting clear expectations on the parts of participants and sponsors regarding expected outcomes and the duration of the activities, gaining group buy-in, and getting management fully onboard, supportive and appropriately providing their leadership. Many concerns regarding AI phases were expressed, including a more detailed preparation phase, and earlier design phase, more process, tools and rigor in the design phase, and follow-up with management during the implementation phase and beyond. They expressed the need to have done a better job with their homework in assessing and understanding corporate culture and in managing the process to gain group cohesiveness earlier and better. Having the right people in the room and an honest open and transparent approach was deemed essential to getting initial and ongoing engagement. The participants had quite a few responses to this question, but they essentially said the same things in different ways and with varied levels of concern and angst expressed.

Eliminate stages of AI not working. Respondents stated that they occasionally needed the flexibility to throw out or not use elements of the AI design that the clients either were not accepting or were most resistant to. The portion that they eliminated was almost always the artistic representation of the dream because some groups are too self-conscious to flow with it and just have fun. When the respondents realized it was not working for the participants, they typically turned to the use of quality tools instead. Some of the quality tools are especially visual, so those were the ones they used. One respondent reported that this approach has worked

so well she routinely utilizes combining of methodologies. When asked about the option of eliminating stages of AI that were not working, respondents replied with the following comments:

> RES 57: The answer has almost always been that I've thrown out the parts of the AI design that the clients either were not getting into or were most resistant to. That's almost always the artistic representation of the dream. Don't get me wrong, I have a great bag of tricks and cool stuff for that part of it, but some groups are too self-conscious to just have fun with it. WHEN I REALIZED THAT IT WASN'T WORKING FOR THEM, I STARTED USING QUALITY TOOLS INSTEAD. Some of the quality tools are especially visual, so I use those. That has worked so well, that I now always create a combined approach at that point.

> RES 68: I see the need occasionally to combine methods, dependent of the social context. I will drop AI steps that are not working and add problem-based tools as needed.

Better preparation and AI alignment with corporate culture. Respondents stated that they needed a detailed and thoroughly planned preparation phase where the participants are informed and trained on the AI basics and a detailed preliminary interview to identify prime concerns and issues. When asked about the option of eliminating stages of AI that were not working, respondents replied with the following comments:

> RES 44: For successful AI it's always about more planning, getting the right people in the room, and lead-time to get the right people invited. And it's also about making certain that cultural needs are observed and addressed.

> RES 53: Preparation, preparation, preparation! The preliminary stage of the AI intervention has been, for me, the most critical source of less-than-totally-successful events.

> RES 65: I would have contracted for more follow-up / Destiny involvement. I should have contracted for more pre-summit training (i.e., training on-site AI facilitators). Not called any of the "Appreciative Inquiry," unless that's what I was specifically called in to do. I would have liked to make my AI trainings more basic. Follow my instincts more about integrating Quality tools. Whenever I have done so, it's gone especially well. One of my favorite AI questions on this topic is, "When things have been going badly and you turned it around, what did you do, what made it possible?, what factors contributed to turning it around? I now try to understand the organization well enough to align my efforts with corporate culture. All of this shows the downside of not doing effective preplanning.

It was the conclusion of a respondent that corporate culture should be carefully assessed to determine whether strengths-based methodologies were considered appropriate to be applied in the long run. For the local interventions, with the clear boundaries between the AI summit and the ongoing operations, the culture assessment and adjustment were not perceived as crucial.

Organizational buy-in and tighter question focus. Respondents described the need to assure organization members understood and accepted the AI concept and process early in an engagement. Practitioners were cautioned to be more assertive in describing the fact that AI is not a silver bullet for everything that has gone wrong within an organization, personal accountability and ongoing productive interaction was equally important. When asked about the need for organizational buy-in and tighter questions focus, respondents replied with the following comments:

> RES 49: I have not had good AI facilitation experience when the organization wants to "get employees on board' with an initiative and want me to "do an AI" after all other attempts have failed. Although to the organization the intervention was a success, I feel that it was a "silver bullet" approach without full commitment of administration to follow through on outcomes/wishes. Plus this approach by its definition creates overly broad open-ended questions that don't allow for co-creation of future states.
>
> RES 59: It is important to make sure that the organization is on board with the AI process and ask for their backing to "listen" to what professionals say. Also, be more assertive AI is not a silver bullet for everything that has gone wrong. Predetermined and sticking to scope and question focus is an imperative.
>
> RES 80: I can't stress enough the necessity for a smaller question focus; begin design phase sooner in the conversation so that their discussions moved to more concrete discussions 'tasting' soon enough to engage more in bringing forth their own action plans.

More effective setting expectations and establishing transparency. Up-front and follow-up education and coaching of leadership with clearer conversation regarding expectations and outcomes is needed. It was reported that when the AI practitioner had not done their homework, e.g., getting management on board, have the intervention focused on business needs, when it's considered as an event, it was prone to failure. Even though the respondent interviewed all of the board members in advance, she stated that she should have met with a representative group of them rather than just the incoming president to get their buy-in and to use their influence to maintain the efforts towards strengths-based changes identified. When asked about the need for more effective setting expectations and establishing transparency, respondents replied with the following comments:

> RES 48: My only real issues with AI so far have occurred when I was working with a client where I did not have the opportunity to set the appropriate expectations and as a result the participants did not really understand why we did what we did and what the outcome could / should have been.
>
> RES 56: Haven't had any real problems with AI interventions yet. The only thing I would do differently from past experiences is spend more time in setting it up so that we had more clear expectations and ground rules from the beginning and this gave the appearance of lacking transparency.
>
> RES 77: When the identified AI outcome was predetermined by upper management versus permitted to be emergent from a diverse group of stakeholders. Expectations could have been handed out at the start of the activity and saved a lot of time. As far as visibility into the AI process, it was the black box it appeared to be. For the participants AI got a bad name and so did I!! It was quite frustrating and I learned from it.

Respondents observed it was essential to create transparency about what was going on and listen better to their feelings throughout the AI intervention and to have the courage to change the process as needed.

Improving strengths-based methodologies. Respondents to this question talked to the need for more academic analysis needed regarding better methodologies. This was a bit telling in that there seems to be a concern that strengths-based methodologies are too theoretical and lacking in practice oriented improvements in which the methodologies could be continuously trialed in real word applications and refined via a combined practicum of practice based and academic analysis and learning. AI, while it emanated from and is ensconced in psychology and OD theory, is perceived to be an amorphous blob of theory and its absolutes and application nuances are difficult to identify and describe.

Developing meaningful metrics of organizational conditions before and after a strengths-based initiative are needed to be able to develop and use ROIs in selling the processes to hard data businesses. The lack of consistency in what AI is and how it is deployed gives concern that it is too dependent on particular facilitators and this limits its capacity to be broadly used, advertised and used in business improvement. Conversely, some of the respondents cautioned against AI being developed into a process with tools and methods, wanting to keep it adaptive

and with situationally appropriate custom applications. A number of the respondents suggested melding strengths-based and problem-based approaches, either in applying problem-based at points such as the AI design phase, or as needed in a situationally appropriate manned dependent on the organization's needs and best case applications. It was recognized that AI was not appropriate for all situations and a better means of determining its appropriateness is needed. There was a perceived need to make AI more data driven and to find means to acquire and utilize appropriate data and analytics. AI used for innovation was seen as a needed and appropriate use. Without necessarily developing a specific training program and a certification for AI facilitators, there was perceived a need to further develop facilitators and for them to understand that AI needs consistency and further documented exploration and recording of engagements, what has worked and what has not worked, and to develop a comprehensive record of successes and failures. Practitioners were advised against force fitting strengths-based approaches and to work with specific organizational circumstances and needs. While there is perceived to be a need for more consistent training and development of facilitators / practitioners, it is also noted that new AI facilitators are frequently too rigid and inflexible. Overall, AI is perceived to need a much stronger business orientation and lure, and this will not be achieved without meaningful metrics, ROIs, success stories, and a movement away from what it perceived to be a too academic orientation.

Respondents to the question of improving strengths-based methodologies were very open in addressing it and very much aligned with each other. Their preponderance of concern was in their not having been able to follow-through with the initiative into the implementation of the improvements, not assisting in the long term journey, and not, in general being able to be around the organization longer post initiative. They also would have asked better questions, which

would have been better aligned to organizational needs. This would have necessitated additional setup and preparation time and organizational involvement. From a functional perspective the respondents would have better trained and prepared the sponsors and provided necessary coaching throughout the engagement. Having a better client protocol and assuring the right people were in the room would have aided in consistent application of the methodologies. A deeper dive into smaller scoped projects was thought to yield better results, and this is very much synchronized with the problem-based approach to their initiatives – with one small and thoroughly completed project at a time the goal. Design principles and tools again were mentioned as a need that would have made even successful strengths-based initiatives more successful. In addition to the above mentioned need to adds elements, there were also a number of things to assure that there were less of in order to improve results, including less controlling of outcomes, less open-ended results, less personal vesting and sense of potential loss, less sense that an AI summit was a one-time event, and the overall lessening of team anxiety. The following essentials would have helped successful AI interventions become more successful.

Additional planning and better setup phase. Many of the respondents stated that the successful applications of strengths-based methodologies had as a prerequisite extensive upfront planning. One stated that had he had the advantage of additional planning prior to implementation he would have been able to better think and plan ahead relative how to sustain and grow the positive post-delivery impact over time. A respondent stated that both of the AI deployments he had worked on yielded great results, which lasted for a while, but he should have planned another cycle of inquiry to keep the momentum. Additional planning would have helped to get the right people in the room, and sufficient lead-time to get the right people invited.

When asked about the potential for improvement of strengths-based methods by adding additional planning and a better setup phase, respondents replied with the following comments:

> RES 49: I believe that a more detailed and thoroughly planned preparation phase where the participants are informed and trained on the basics and a detailed preliminary interview to identify prime concerns and issues.
>
> RES 72: It needed more up-front education and coaching of leadership (both executive and middle management). Clearer conversation regarding expectations and outcomes is always beneficial. More follow-up with leadership is a necessity.
>
> RES 75: Even though I interviewed all of the board members in advance, I should have met with a representative group of them (rather than just the incoming president) to get their buy-in and to use their influence to maintain the efforts towards strengths based changes which were identified.
>
> RES 83: Preplanning better would have allowed me to sell more days to continue with the pilot team on at least 6 month. As it was they never really got to fully implement their plans and the process eventually stopped short of its potential.

It was believed that it was important to get as much time as possible in the setup phase by introducing it so people could get past the cultural socialization to not talk about their strengths or worry they are bragging when they do. Preparation, preparation, and more preparation are essential! The preliminary stage of the intervention was seen as the most critical source of less-than-totally-successful events. Several AI practitioners expressed the need to have in the contract stages sold more days after the program summit to coach the team leader and pilot team. Although the AI summits themselves were perceived to have been successful the follow through taking the summit ideas to action stages was lacking. The AI summits engaged people and got them excited, but the absence of the AI facilitator after the summit left many feeling all geared up and prepared for effecting change but then having nowhere to go.

Quite a few respondents discussed the need to focus on knowing the individual, group, or organization i.e. the "target" in order for the AI practitioner to tailor their approach to meet the specific needs. This means that the facilitator needs to actively listen and to know when a target is not ready for strengths-based approaches. It was adamantly stated that the methodologies work and that the people involved in leading the initiatives are the ones that need addressing. All

participants need to be educated, trained, and carefully facilitated throughout the process used and this need for thorough training includes the facilitators. The methodologies are productive when applied to activities in which they are a good fit, but they do not fit every organizational improvement need or opportunity.

Less controlling the outcome. A respondent recalled having in his first few AI sessions feeling the need to control the outcome and learning as he progressed through multiple sessions that the best use was to treat the process as research and discover by doing it. The AI practitioners described the process of thinking through the steps in advance of the participants and the difficulty they occasionally experienced in letting the process take its course versus driving the process. This was the case when the AI practitioner was relatively new in the practice, and the answers seemed very apparent yet the participants had not yet arrived at the same conclusion. When asked about the potential for improvement of strengths-based methods by not controlling the outcome, respondents replied with the following comments:

> RES 49: In the first sessions I did I wanted to control the outcome. I have learned that I better use the methodologies as research and discover by doing it.
>
> RES 83: I have always been challenged to let the AI process find its way. I have a strong tendency to interview and day, "That's you answer, you've been beating around it all day, nothing's changed, go with it, expand it, work with it, open your eyes!!!" but of course that's the worst thing you can do. It is a fine line sometimes between counter-productive redundant discussion versus almost getting there and needing some additional time…

Fully completing the 4-D approach and assuring ongoing involvement. Respondents who were hired consultants to perform the AI 4D intervention stated that because the hiring entity wanted to tightly control costs they frequently did not feel that they were allowed to fully participate in the delivery stage and rarely were brought back in to assure solutions remained effective. These consultants reported that they routinely tried during the contracting phase to assure that they would be around longer during delivery and persuade the client to invite them back periodically to support colleagues in their ongoing strengths journey. When asked about the

potential for improvement of strengths-based methods by fully completing the 4-D approach and assuring ongoing involvement, respondents replied with the following comments:

> RES 53: I have begun to engage the administration in follow up activities and insist on the full Design and Destiny approach. They seem to want to leave it at the Discovery/Dream and then move on. I am remedying this by doing workshops at the college open to all so that the power of AI can be known.
>
> RES 67: Management has interceded in two AI activities that I have conducted and against my advice and our initial agreements, asked to eliminate or significantly reduce the time and scope of various AI 4D cycle steps.
>
> RES 70: In the various AI activities I have been part of and led, it has been very difficult to contract for days beyond the initial 4-D cycle. I have pushed for more days beyond the Deliver stage to assure implementation and organizational readiness for future AI activities, usually to no acceptance, but I try because I think it's important.

Respondents reported that they routinely engaged the client administration in follow up activities and insisted on the full Design and Destiny approach when possible. It was reported that clients frequently wanted to end the AI 4D phases at Discovery / Dream and then move on. The reporting practitioner reported that she remedying this by doing workshops at the client's operation open to all; so, that the full power of AI could be known. Respondents also reported that it was important to build more time into the design and deliver/destiny phases with skilled practitioners in the process. This helps keep momentum moving forward while the organization is getting to the tipping point. The additional time in the design and deliver/destiny phases is used for developing more action teams, and working on the provocative question side of the discussions to help them elevate the conversation beyond status quo while they were gaining their own change confidence and muscle.

Focus on basic business challenges. Respondents uniformly stressed the importance of making certain strengths-based methodologies and their AI 4D interventions focus on basic business challenges, and management have thought through the consequences as well as potential gains. When asked about the potential for improvement of strengths-based methods by

assuring its focus on basic business challenges, respondents replied with the following comments:

> RES 49: Part of the problem we face as AI proponents and facilitators is the fact that with their not being good studies or information regarding its ROI, we are left to describe what appears to many to be a fuzzy HR OD Psych sort of process in terms of business benefits. It's an uphill battle trying to speak to business types whose focus is dollars in terms of finding your core and essence of excellence and building upon it. At times I have wondered if I was going to be hurled out of their office, a window or off the roof.
>
> RES 58: It is a challenge to show executives that Appreciative Inquiry really works for any type of business challenge or opportunity beyond just making the organization feel better. There is certainly a leap of faith involved; a leap made even more difficult by the time some of the AI interventions take.
>
> RES 69: The most rewarding AI initiatives that I have worked on have been business process improvements. Those seemed to be a much harder sell than did the OD types of activities. But AI works as well for hard dollar business challenges as it does for some of the softer-side activities.

As the AI dialog unfolds, there are positive and negative issues and feelings discussed and there is potential for the temporary surfacing of otherwise submerged and latent concerns and disruptive tensions. Overall business strategies need to be furthered by the strengths-based methodologies in order to assure maximum benefits derived by the intervention and to assure ongoing management support.

AI, methodology or mindset? Several respondents took different positions regarding AI being a methodology versus a mindset. The general perception appeared to be that it is certainly a social constructionist mindset at play, but for AI to truly be effective, it needed to take on more of a structured methodology that can be applied somewhat consistently and systematically yet remain situationally flexible. More than one respondent adamantly proclaimed that as social constructionists, strengths-based approaches are more of a mindset than a methodology. It was positioned that, as a social constructionist, they see some of the distinctions between methodologies, or even between strengths-based and problem-based as not very meaningful. That in practice, or praxis, it's all about what the client needs, wants, and understands at any given moment that determines the best methodology. When asked about the potential for

improvement of strengths-based methods by determining if AI is a methodology or a mindset, respondents replied with the following dichotomous comments:

> RES 50: I see AI as a world-view, NOT an OD tool. I do though recommend clients that they can get more from those problem-focused tools if they set them in an appreciative context, but that is not about merging them, it's about keeping them separate and joining them appropriately.
>
> RES 72: AI starts to shift the world-view that clients have. They challenge dominant paradigms, e.g. the deficit mode of thinking and acting. They offer hope where before weakness and problems were dominant. They offer ways to explore, plan and deliver which make the most of people's talents.
>
> RES 81: It is hard to say to a client "trust the process" until you have done sufficient workshops or summits so that you can show how it has evolved. With the four D process it is easier to explain, than before (in 1995) when the process was not so neatly described and packaged.

It was further explained that the consultant, as they see it, needs to be able to drop her/his tools and invent new ones in the moment, if s/he is to be most relevant and helpful in being of service to the client's needs. The overriding position taken by respondents was that AI is a methodology, and as such it needs further structural and tools development and business solution centric evolution to assure consistency of application and optimization of results.

AI needs adaptation and evolution. Respondents stated that processes such as AI always need to be adapted, but they have generally found that recently trained and certified facilitators do not have the flexibility to adapt processes. The potential for certification of AI practitioners concerned them because it confirms one way of doing things. Respondents believe facilitators need to keep on honing their skills and seeing what else is being offered, and incorporating new approaches as appropriate. One respondent recommended using Internet sites such as the World Café to share information between AI practitioners, and stated that studying and understanding the art of hosting could help practitioners build additional facilitation skills. It was proposed that AI practitioners need to evolve in their integration with other more complex approaches to data gathering and the design of organizations such as social network analysis and dynamic assessment and to take advantage of the learning tactics such as action learning and social media

options such as twitter and yammer, for instance as ways to increase the willingness of business to invest in them. When asked about the potential for improvement of strengths-based methods by AI adapting and evolving, respondents replied with the following comments:

> RES 45: I see a primary benefit of AI as working from a shared vision. After that, I don't think that specific tools matter all that much, as long as they are used in a strength-based way. Maybe that is what Jane is saying in her ongoing friendly debate with Bernard. I think that Bernard is saying that some tools are more effective than others to help bring the shared vision into reality, and clients often need a tool's at the Design stage. I agree with that too and think that the Quality side often has the better tools for Design, AS LONG AS they are used from a strength-based mindset and don't slip into assessment and blame-focused problem solving.
>
> RES 53: In my country and in the region, organizations are rarely aware of their strengths. They are much more eager to invest lot of money and their trust in outsiders, consultants help and in hiring professionals for higher managerial positions, rather than to build their own, well assessed and continuously develop potentials (in practice and through carefully chosen training).AI is particularly helpful in the initiation of new change, from carefully craft the question that reflect desire for change to initialing the concrete, projects for the change implementation with the strong ownership. I particularly love the side-effect of six freedom creation during AI intervention. I hope AI continues to develop and evolve.
>
> RES 61: The reflection capability of the person conducting AI is important. He needs to reflect on how his strength based approach works during the day, ask questions and be patient / have a journal / plus have the trust that with the time this knowledge will help him to grow the organization in the right direction. The greatest weakness of this domain is that is too young and still there is very little knowledge about how strengths interact with problems. The domain will continue to evolve and grow.

It was stated by several respondents that AI should be fully integrated with other types of intervention for individuals for coaching teams and organizations. Further, if AI were to be integrated with other methodologies, it would be possible for AI to establish a higher profile and be adopted by the leading organizations. AI was thought by several practitioners to potentially combine effectively with problem-based methodologies. AI was believed to be flexible enough to be designed to better address more operational business processes like Lean does. Several respondents believed AI is still on a strategic, philosophical level and needs to be formatted and used to address everyday challenges, as does problem-solving. The design phase of AI requires the most conscious preparation in order to apply right tools and methods to achieve useful prototypes or models, and the greatest need for improvement was thought to be in that respect.

Effectiveness research is needed. Academics are positioned to provide effective and consistent research into the short, medium and longer-term outcomes of the work done with strengths-based approaches and methodologies. It was recommended to conduct more research and generate more knowledge and disseminate knowledge with evidence. AI facilitators were cautioned not to take it as only the tools for consultancy and to be the believer of the approach before being the trainer/facilitator and to experiment within themselves first. More research around ROI, when it works, under what circumstances, and why is needed as well as more research around the difference in experience and education of people who know how to use it versus those who read about it in a book but don't have the background to facilitate it. When asked about the potential for improvement of strengths-based methods through additional effectiveness research, respondents replied with the following comments:

> RES 49: At the level of my interventions, i.e. individual, team whole-system, they provide a powerful set of approaches; they are comprehensive, have high face validity, are respected by my clients and fit the approach I take with my assignments, i.e. an appreciative, positive psychological stance. They are "complete" within the parameters that I can control.
>
> RES 62: As long as one adds the implementation piece...and works a group to next steps...the methodology is complete...I am award that a criticism of AI is action...I would counter that it is a weakness of most planning processed & many OD practitioners...people plan and they rarely implement.
>
> RES 77: The only one intervention in over 15 years that didn't work too well is when the whole system was not in the room. It achieves better result than training. A client asked me to do a two-day customer focus workshop for IT employees and I proposed and ran an AI summit - and the results were over and above expectations. It achieves change without resistance. A client asked me to work with an internal group of auditors (45 maximum) to change their role and their mindset. We ran an AI summit and the director was amazed at the group's propositions on their new role. It works faster than problem solving. A client asked me to run a workshop to improve the leadership training worldwide. I was told there would be a lot of challenging, negotiating and resistance. We had two days scheduled, and came to a great conclusion after one and a half days. For me, it was and is effective.
>
> RES 80: Complete answer up to the point where people who are unaccustomed to creating real projects and measurable goals/objectives cannot "see" how the organization can be built. For example Institutional Research wants to do "Gap Analysis" and is suspicious of anything else.
>
> RES 82: I apply when appropriate, so in my work the answer has virtually been always complete. There are circumstances when SBIM do not seem to be the most effective path, such as when a system is not performing at all. I use this analogy: When I want to get most healthy, I want a doctor to work with me that will ask questions such as "tell me when you feel most healthy and effective." Times when weight loss, increasing exercise, improving nutrition, meditating and so on would be most effective outcomes.

> However, If I have a broken leg, I want a doctor to ask "Where does it hurt?" and not, "tell me about a time you felt good walking."
>
> RES 83: The final results are generally accepted but there is always a nagging sensation that something more could be done. There is also a concern that there are threats and weaknesses that could not be reframed as challenges. This usually resulted in risk mitigation "add-ons" to get buy in.

It was stressed by several respondents that both AI and positive psychology are research based and scientifically validated, and research need to derive the evolution versus practitioners applying a methodology that they don't truly understand the basis for. In order for AI to progress more robust measures / quantitative and qualitative proof of its effectiveness is needed and in order to establish data for demonstration of return on investment. In order to more effectively develop data regarding AI's potential for return on investment it is essential that more effective work be accomplished that makes an assessment or measurement of conditions before and after the AI intervention. Additional research also needs to be undertaken demonstrating that the AI methodology can be used for innovation. At this time with the absence of extensive applied state research, AI is looked at as one of the methods to choose but not the only one, and in some contexts the method becomes an ideology and the change agent becomes more a philosophical guru / guide who comes to redeem his people than a facilitator leading participants through the use of a well-developed structured strengths-based improvement methodology.

Response Cross-tabulation

The next analysis section will compare and contrast between problem-based and strengths-based responses according to the following sequence and inter-grouping order depicted in Table 5.2.

Table 5.2

Response Cross-Tabulation Scheme

Problem-Based Responses	**Strengths-Based Responses**
17. What do you see as the primary contributions of using problem-based improvement methodologies?	41. What do you see as the primary contributions of using strengths-based improvement methodologies?
18. What do you see as the primary weaknesses of using problem-based improvement methodologies?	42. What do you see as the primary weaknesses of using strengths-based improvement methodologies?
20. In your past successful uses of problem-based improvement methodologies, what could you have done to make them more effective?	44. In your past successful uses of strengths-based improvement methodologies, what could you have done to make them more effective?
22. In any less than successful outcomes using problem-based improvement methodologies, what could you have done improve your results?	46. In any less than successful outcomes using strengths-based improvement methodologies, what could you have done to improve your results?
26. How could problem-based improvement methodologies be improved?	50. How could strengths-based improvement methodologies be improved?

Cross-tabulated questions for the analysis of solution generating questions / responses comparing and contrasting problem-based and correlative strengths-based input(s)

Question Set:

17. What do you see as the primary contributions of using problem-based improvement methodologies?	**41. What do you see as the primary contributions of using strengths-based improvement methodologies?**

Question: What are the primary contributions of the improvement methodology you primarily use?

Problem-based respondents (Questions 17). Respondents determined that the primary benefits derived from using problem-based methods were making data based decisions in a team

based environment. They praised the structured approach and the analytical rigor provided by the methodology. Knowledge creation was a positive element, and the addition of cross-functional insights helped develop more efficient processes and increasing customer satisfaction. It was seen as robust, transparent and in its focus in following the data, root cause determination was facilitated. It is seen as logical and aided in system interactions. Personal bias is removed due to the objective reliance on data, and this also aids in the reduction of silo mentalities in which functional and departments are seen as primary versus the needs of the organization as a whole. Processes are made more repeatable as both special cause and common cause variance is removed from the process with the reliance upon and effective application of statistical analysis.

Table 5.3 describes the number of coding incidents for Question 17. The coding incidents number and percentage are simply the number of respondents to their question responding in a particular manner and accordingly the percentage of respondent answering.

Table 5.3
Coding Incidents for Question 17

17. What do you see as the primary contributions of using problem-based improvement methodologies?	**Code %**	**Number Applied**
data based decisions	45%	15
team based orientation	24%	8
structured approach taken	21%	7
analytical rigor	18%	6
adding knowledge	15%	5
develop efficient process	15%	5
cross functional insights	12%	4
customer orientation	12%	4
problem ID agreement	12%	4
root cause identification	12%	4
transparency	12%	4
develop robust process	9%	3
following the data	9%	3
leadership support gained	9%	3
logical path developed	9%	3

aids system interactions	6%	2
removes personal bias	6%	2
repeatable processes	6%	2
checks and balances	3%	1
removes silo mentality	3%	1
statistical validation	3%	1
Uncategorized	0%	0

Strengths-based respondents (Question 41). Strengths-based improvement methodologies are perceived to have their own set of inherent weaknesses, key of which are in effectively determining the return on investment (ROI) gained through their implementation. This also inhibits the capacity for strengths-based initiatives to find a fit in the hardscrabble business culture. Ill prepared facilitators are not making the business sell any easier and potentially contribute to the perception that strengths-based modalities are soft side human resources "touchy feely" endeavors.

With strengths-based approaches to improvements having their basis in advanced academic research and consulting provided by academicians, the jargon and descriptors used are not necessarily clearly understood by rank and file employees. One of the means of applying large strengths-based initiatives is through the AI summit. These summits, while typically effective in developing improvements, are often beset with the deleterious impact of management teams having unrealistically high expectations of immediate and dramatic change emanating from the summit. Problem-based methods are so universally recognized and embraced by organizational leaders that the "sell" difficulties are compounded via their non-fact based comparisons.

One of the challenges faced by strengths-based practitioners is found in the general disdain of and reluctance for developing strengths-based "processes" or "tools." A potential result of this is the perceived last of system or process for the critical AI stages of Design and

Deliver (D&D). D&D lacks rigor of having repeatable analytical tools or process steps and, as a result, occasionally the wind falls out of the AI initiative's sails at these steps, with practitioners and participants wondering how to actually Design and Deliver effective change. Although strengths-based approaches to improvement are engaging and upbeat, culture changes take time, there is an expectation of "quick fixes", and they are not seen as being effective in resolving crisis situations. Concerns exist that no matter how strengths-based initiatives are conceived, there is the potential that management would or could misapply the input gained in the discussions to the detriment of the organization and its personnel. The question frequently arises in strengths-based initiatives of, "But what about the real problems?" Not all organizational problems can be voiced in the positive and not all strengths can be enhanced and expanded in a manner to effectively encroach into undesired negative space. Coinciding with the thought that strengths-based approaches ignore problems is the concern that they also potentially either do not recognize or they ignore threats and weaknesses.

Table 5.4 describes the number of coding incidents for Question 41. The coding incidents number and percentage are simply the number of respondents to their question responding in a particular manner and accordingly the percentage of respondent answering.

Table 5.4

Coding Incidents for Question 41

41. What do you see as the primary contributions of using strengths-based improvement methodologies?	**Code %**	**Number Applied**
employee engagement	38%	12
AI initiates new change	22%	7
AI is generative	22%	7
builds momentum and trust	22%	7
generates good dialog	19%	6
people strengths increased	19%	6
a new shared vision	16%	5
implement fast action	12%	4
optimistic in excellence	12%	4
organizational energy	12%	4

ID what's valuable in org	9%	3
lasting changes	9%	3
objectives achieved	9%	3
relationship building	9%	3
unexpected revelations	9%	3
changes happen all there	6%	2
focus on org at its best	6%	2
helps move to better PS	6%	2
inter-level sense-making	6%	2
work to "needs"	6%	2
sustaining in delivery	3%	1
avoid "don't wants"	3%	1
no PS related depression	3%	1
ongoing learning	3%	1
positive culture changes	3%	1
relevant to the business	3%	1
the offer of hope	3%	1
less coercive leadership	0%	0
no blame-focused PS	0%	0
stakeholder participation	0%	0
whole system participates	0%	0
works from shared vision	0%	0
Uncategorized	0%	0

Question Set:

18. What do you see as the primary weaknesses of using problem-based improvement methodologies?	**42. What do you see as the primary weaknesses of using strengths-based improvement methodologies?**

Question: What do you see as the weakness(s) of the improvement methodology you primarily use?

Problem-based respondents (Question 18). The weaknesses in using problem-based methodologies are primarily in their total reliance on analytical processes and focused problem-based team based orientations. With this focus, almost totally missing are the people based human elements of motivation, belonging, appreciation for contributions, recognition of strengths, and those positive elements existing already in organizations. People and their

feelings and wants are not in the problem-based equation, and participants come to sense that they are but replaceable cogs in the wheels of their organizational churn. Typically problem-based methodologies are complex, require extensive training, and are very much dependent upon a skilled and trained facilitator. The problem-based tools are used in stepwise analytical processes, and it's essential that the facilitator and team understand and apply the correct tool(s) in the correct manner at the correct time. The result of failure to appropriately and effectively apply problem-based tools can result in dramatic failures. Problem-based tools usage and the process steps can become very mechanical and predictive in application and outcome, greatly reducing the potential for innovation and the creation and use of new insights. The publicity and fanfare associated with the use of particular problem-based methodologies has given rise to high and immediate expectations of savings and improvements. Problem-based methodologies require for taking root and flourishing, a receptive culture and bring their own unique cultures and cultural adaptations. It can be an interesting and ironic dichotomy to observe and participate in bureaucracy busting initiatives undertaken using a bureaucratic problem-based methodology.

Respondents perceived (44%) that the people elements regarding motivation, sense of belonging and commitment, and buy-in were missing or very limited in the use of problem-based tools. People issues were handled like any other problem to be addressed, and this became very convoluted when the people issues being addressed using problem-based, were people issues arising from the use of problem-based methodologies. Complex processes were also seen as difficult to address, as was progress limited when faced with a lack of data. Data driven machines slow to a crawl when data are limited or unavailable and data driven process can use the wrong or inaccurate data, and results can be inaccurate and corrections missed. Cultural

issues can adversely impact problem-based initiatives, and it is difficult to use problem-based methodologies to address cultural issues. Change management is not perceived to be a core competency of problem-based processes and methodologies and their practitioners. The problem-based tools and methodologies were perceived to be very mechanical in their stepwise application and tools selection and usage, restricting innovation and follow-through. Identifying and utilizing effective process owners are critical to the success of problem-based initiatives, as is effective scoping of projects or problems.

Table 5.5 describes the number of coding incidents for Question 18. The coding incidents number and percentage are simply the number of respondents to their question responding in a particular manner and accordingly the percentage of respondent answering.

Table 5.5
Coding Incidents for Question 18

18. What do you see as the primary weaknesses of using problem-based improvement methodologies?	**Code %**	**Number Applied**
people not in equation	34%	11
needs leadership support	31%	10
time to ID cause / fixes	28%	9
lack of process knowledge	25%	8
need skilled practitioner	25%	8
tools not used properly	25%	8
expects immediate returns	18%	6
needs culture buy-in	18%	6
not institutionalized	18%	6
needs discipline	15%	5
can be too mechanical	12%	4
data availability	9%	3
people not in process	9%	3
personal agendas enter	9%	3

wrong problem ID	9%	3
inhibits innovation	6%	2
lack of team allocation	6%	2
can become bureaucratic	3%	1
one size fit all approach	3%	1
sets high expectations	3%	1
soft ROI's	3%	1
Uncategorized	0%	0

Strengths-based respondents (Question 42). Respondents determined that the primary benefits derived from using strengths-based methods were employee engagement and the fact that it's seen as generative and initiating new change. It builds momentum and trust in participants and generates positive dialog as it creates a shared vision of the future. Action initiation is relatively quickly arrived at, and it develops and delivers in an optimistic mode for participants. Participants report an organizational energy when using methodologies such as AI. They quickly come to agreement relative to those things that are truly important to the organization. Changes developed and implemented using strengths-based as seen a lasting improvements and many of the revelations garnered from the methodology are unexpected, indicating new understandings are developed and new vantage points evolved. With strengths-based approaches, the optimistic and engaging interactions do not devolve into negative blaming energy, which depresses organizations. Learning is enhanced, and relevant positive changes in the culture are observed and experienced. Leadership becomes a guiding and energizing force with strategy and vision setting at its core versus evolving into coercive forces sapping organizations of their spirit and enthusiasm.

Table 5.6 describes the number of coding incidents for Question 42. The coding incidents number and percentage are simply the number of respondents to their question responding in a particular manner and accordingly the percentage of respondent answering.

Table 5.6

Coding Incidents for Question 42

42. What do you see as the primary weaknesses of using strengths-based improvement methodologies?	Code %	Number Applied
ill prepared facilitators	16%	5
establishing ROI	13%	4
fit hard business culture	13%	4
it's poorly understood	13%	4
seen as touchy-feely OD	13%	4
Uncategorized	10%	3
AI language foreign	6%	2
expectations of "summit"	6%	2
lack of D&D methodology	6%	2
many see PS as the way	6%	2
not useful in crisis	6%	2
overall time required	6%	2
trusting the process	6%	2
used as positive feeling	6%	2
when seen as technique	6%	2
culture change takes time	3%	1
energizing "summit"	3%	1
expect quick fixes	3%	1
glossing over problems	3%	1
groups need mutual goals	3%	1
ignores real problems	3%	1
management misapply input	3%	1
needs full commitment	3%	1
needs leadership buy-in	3%	1
needs reflective element	3%	1
over reliance on methods	3%	1
skeptical participants	3%	1
the "soak time" required	3%	1
threats/weakness ignored	3%	1
translate to users words	3%	1
poor process introduction	0%	0
value hard to explain	0%	0

Question Set:

20. In your past successful uses of problem-based	44. In your past successful uses of strengths-

improvement methodologies, what could you have done to make them more effective?	based improvement methodologies, what could you have done to make them more effective?

Question: In your past successful uses of the improvement methodology you primarily use, what could you have done to make it more effective?

Problem-based respondents (Question 20). Respondents to this question were very open in addressing it and very much aligned with each other. Their preponderance of concern was in their not having been able to follow-through with the initiative into the implementation of the improvements, not assisting in the long term journey, and not, in general being able to be around the organization longer post initiative. They also would have asked better questions, which would have been better aligned to organizational needs. This would have necessitated additional setup and preparation time and organizational involvement.

From a functional perspective, the respondents would have better trained and prepared the sponsors and provided necessary coaching throughout the engagement. Having a better client protocol and assuring the right people were in the room would have aided in consistent application of the methodologies. A deeper dive into smaller scoped projects was thought to yield better results, and this is very much synchronized with the problem-based approach to their initiatives – with one small and thoroughly completed project at a time the goal. Design principles and tools again were mentioned as a need that would have made even successful strengths-based initiatives more successful. In addition to the above mentioned need to add elements, there were also recommendations for a number of things that there needed to be less of in order to improve strengths-based results. The elements noted as needing reduction included being less controlling of outcomes, less open-ended results, less personal vesting and sense of

potential loss, less sense that an AI summit was a one-time event, and the overall lessening of team anxiety.

Table 5.7 describes the number of coding incidents for Question 20. The coding incidents number and percentage are simply the number of respondents to their question responding in a particular manner and accordingly the percentage of respondent answering.

Table 5.7
Coding Incidents for Question 20

20. In your past successful uses of problem-based improvement methodologies, what could you have done to make them more effective?	**Code %**	**Number Applied**
teach to solve problems	25%	8
apply methodology	22%	7
get manager buy-in	22%	7
involve more stakeholders	19%	6
better scoping project	16%	5
get organizational buy-in	16%	5
increased communication	16%	5
set sponsor expectations	12%	4
done it faster	9%	3
manage long term change	9%	3
more OD change methods	9%	3
sponsor training	9%	3
work to gain trust	9%	3
broadly apply solutions	6%	2
find right sponsor	3%	1
increased broad training	3%	1
involve more SME's	3%	1
top down ID processes	3%	1
tried to simplify method	3%	1
understanding people	3%	1
use PMO doc repository	3%	1
use correct tools	3%	1
reduce scope creep	0%	0
Uncategorized	0%	0

Strengths-based respondents (Question 44). Respondents to this question were very open in addressing it and very much aligned with each other. Their preponderance of concern was in their not having been able to follow through with the initiative into the implementation of the improvements, not assisting in the long-term journey, and not, in general being able to be around the organization longer post initiative. They also would have asked better questions, which would have been better aligned to organizational needs. This would have necessitated additional setup and preparation time and organizational involvement. From a functional perspective, the respondents would have better trained and prepared the sponsors and provided necessary coaching throughout the engagement. Having a better client protocol and assuring the right people were in the room would have aided in consistent application of the methodologies. A deeper dive into smaller scoped projects was thought to yield better results, and this is very much synchronized with the problem-based approach to their initiatives – with one small and thoroughly completed project at a time the goal. Design principles and tools again were mentioned as a need that would have made even successful strengths-based initiatives more successful. In addition to the above mentioned need to adds elements, there were also a number of things to assure that there were less of in order to improve results, including less controlling of outcomes, less open-ended results, less personal vesting and sense of potential loss, less sense that an AI summit was a one-time event, and the overall lessening of team anxiety.

Table 5.8 describes the number of coding incidents for Question 44. The coding incidents number and percentage are simply the number of respondents to their question responding in a particular manner and accordingly the percentage of respondent answering.

Table 5.8
Coding Incidents for Question 44

44. In your past successful uses of strengths-based improvement methodologies, what could you have done to make them more effective?	Code %	Number Applied
follow-though implement	16%	5
assist long term journey	13%	4
being around longer	13%	4
more set-up time	13%	4
follow-up into destiny	10%	3
more planning	10%	3
ask better questions	6%	2
combining methods	6%	2
involved more people	6%	2
more coaching team leader	6%	2
more preparation	6%	2
record process/outcome	6%	2
right people in room	6%	2
Uncategorized	6%	2
add external stakeholders	3%	1
better customer protocol	3%	1
consistent application	3%	1
deep dive small projects	3%	1
design principles	3%	1
focus on business needs	3%	1
gather more information	3%	1
grow internal leaders	3%	1
help/w hard questions	3%	1
less controlling outcome	3%	1
less open-ended results	3%	1
less personal vesting	3%	1
lessen team anxiety	3%	1
more planning questions	3%	1
not being grass-roots up	3%	1
not one shot event	3%	1
provide better training	3%	1
revisit recharge people	3%	1
understand consequences	3%	1
work/w internal champion	3%	1
stay to make it work	0%	0

Question Set:

22. In any less than successful outcomes using problem-based improvement methodologies, what could you have done improve your results?	46. In any less than successful outcomes using strengths-based improvement methodologies, what could you have done to improve your results?

Question: In any less than successful outcomes using the improvement methodologies you primarily use, what could you have done to improve your results?

Problem-based respondents (Question 22). The respondent's primary concern (42% of respondents) expressed was one of the need to have more clearer and continuous communication regarding the benefits derived and intended to be derived via the problem-based initiative. Better project selection and assuring the results were truly data driven were also seen as a high imperative. Management and complete organizational involvement are needed along with true personal and organizational accountability for outcomes to see the success of the problem-based initiatives rested with the facilitator and to some degree with their direct teams. Change management and understanding people and their drivers was a vital element without which project would not have optimum and lasting changes, patches versus problem-based would be the resultant outcome. Problem-based initiatives that do not connect to the organization's strategic plans were seen as being doomed to failure. Problem-based initiatives that did not engage and change people failed regardless of the rigor and the appropriateness of the analytics used. Having the right answer did not help, if no one listened or cared.

Table 5.9 describes the number of coding incidents for Question 22. The coding incidents number and percentage are simply the number of respondents to their question responding in a particular manner and accordingly the percentage of respondent answering.

Table 5.9
Coding Incidents for Question 22

22. In any less than successful outcomes using problem-based improvement methodologies, what could you have done improve your results?	Code %	Number Applied
benefits communication	42%	14
better project selection	21%	7
data driven solution	18%	6
methods to change people	15%	5
more manager involvement	15%	5
involved stakeholders	12%	4
meaningful accountability	12%	4
better quicker answers	9%	3
change management	9%	3
positive need orientation	9%	3
project impacts sponsor	9%	3
provide needed resources	9%	3
sponsor communication	9%	3
Uncategorized	9%	3
better team alignment	6%	2
connect strategic plan	6%	2
stakeholder involvement	6%	2
better program management	3%	1
build trust in team / org	3%	1
change people/culture	3%	1
define whole problem	3%	1
leader PS method training	3%	1
more SME input. broader	3%	1
project champions	3%	1
reduce scope creep	3%	1
simplify message	3%	1
use PS methodology	3%	1
visible leadership	3%	1

Strengths-based respondents (Question 46). The respondents had as their most impactful needs to assure more successful strengths-based initiatives the related concerns of setting clear expectations on the parts of participants and sponsors regarding expected outcomes and the duration of the activities, gaining group buy-in, and getting management fully onboard, supportive and appropriately providing their leadership. Many concerns regarding AI phases

were expressed, including a more detailed preparation phase, and earlier design phase, more process, tools and rigor in the design phase, and follow-up with management during the implementation phase and beyond. They expressed the need to have done a better job with their homework in assessing and understanding corporate culture and in managing the process to gain group cohesiveness earlier and better. Having the right people in the room and an honest open and transparent approach was deemed essential to getting initial and ongoing engagement. The participants had quite a few responses to this question, but they essentially said the same things in different ways and with varied levels of concern and angst expressed.

Table 5.10 describes the number of coding incidents for Question 46. The coding incidents number and percentage are simply the number of respondents to their question responding in a particular manner and accordingly the percentage of respondent answering.

Table 5.10
Coding Incidents for Question 46

46. In any less than successful outcomes using strengths-based improvement methodologies, what could you have done to improve your results?	**Code %**	**Number Applied**
clear expectations	15%	4
gain group buy-in	15%	4
get mgt on board	11%	3
Uncategorized	11%	3
detail preparation phase	7%	2
earlier design phase	7%	2
focus on business needs	7%	2
follow-up w leadership	7%	2
ID prime concerns	3%	1
ID what's good management	3%	1
assess corporate culture	3%	1
courage of convictions	3%	1
do more homework	3%	1
early client action plans	3%	1
early leader coaching	3%	1
engagement records	3%	1

follow-up follow-through	3%	1
had all in the room	3%	1
increased transparency	3%	1
leader champions team	3%	1
leaders visible support	3%	1
long term planning	3%	1
manage client expectation	3%	1
mgt ended involvement	3%	1
mgt to influence action	3%	1
more days with team	3%	1
need group cohesiveness	3%	1
not all controllable	3%	1
ongoing SB commitment	3%	1
ongoing client dialogue	3%	1
participant training	3%	1
problems drove AI end	3%	1
senior leader buy-in	3%	1
small question focus	3%	1
trained back-up team	3%	1
use PS tools as needed	3%	1
used a phased approach	3%	1
AI training more basic	0%	0
more transparency	0%	0
situational flexibility	0%	0

Question Set:

26. How could problem-based improvement methodologies be improved?	**50. How could strengths-based improvement methodologies be improved?**

Question: How could the improvement methodology you primarily use be improved?

Problem-based respondents (Question 26). Respondents to the question of how problem-based methodologies could be improved, overwhelmingly (87%) stated that people psychology was needed for motivating individuals and teams and in developing and deploying effective training and communications. Other improvement concerns revolved around adding

tools, discipline, change management, and a less dogmatic approach. Standardization of methods and project selection were needed and practitioners keeping tools usage current were deemed incremental improvements as was ending practitioner's warring over preferred methods, e.g., Lean, Six Sigma, and / or Lean Six Sigma. With the onset of online training and other distanced approached to learning problem-based methodologies, there are many practitioners lacking real world experience and this needs to be a prerequisite to qualifying practitioners for initiating and leading problem-based initiatives. Overcoming imbedded management thinking was seen as a necessity for helping organizations develop, implement, and then live new and changed processes. There is a tendency for the field's practitioners and the body of knowledge to plateau and not advance past its current state. Innovation was at the core of methodologies such as Lena and Six Sigma, and their static condition can't end innovation in what was an evolving and ever improving process. Selecting a meaningful project is essential and improvements in project vetting and selection need to be developed. There is also a related need to get to better results, quicker. A significant improvement need noted was in better framing problems or opportunities in a more positive manner. Communications could and should be better tailored to specific populations and subpopulations in problem-based initiatives and framed specifically to different needs and phases of the initiatives. More often than not, projects are identified on current pain versus longer-term opportunities, and a more strategic approach needs to be instilled versus relying solely on tactical responses.

Table 5.11 describes the number of coding incidents for Question 26. The coding incidents number and percentage are simply the number of respondents to their question responding in a particular manner and accordingly the percentage of respondent answering.

Table 5.11

Coding Incidents for Question 26

26. How could problem-based improvement methodologies be improved?	**Code %**	**Number Applied**
add psychological element	30%	13
effective tool usage	18%	6
know both change & people	15%	5
add real world experience	12%	4
add team based tools	12%	4
apply change management	12%	4
apply human factors	12%	4
embed management thinking	12%	4
tie to business strategy	12%	4
tools as part of solution	12%	4
training on methods	12%	4
add tools as needed	9%	3
continue to reinvent	9%	3
use disciplined approach	9%	3
use soft skills as needed	9%	3
it's not just statistics	6%	2
keep PS skills current	6%	2
less dogmatic approach	6%	2
method standardization	6%	2
users war over methods	6%	2
ID & communicate baseline	3%	1
PS - meaningful projects	3%	1
PS for transactional proj	3%	1
PS not always applicable	3%	1
apply team dynamics	3%	1
better answers quicker	3%	1
end projects ID'd by pain	3%	1
end reliance on "experts"	3%	1
enough time to complete	3%	1
leaders learn PS process	3%	1
manager ethos/consistency	3%	1
positive issue statements	3%	1
tailor communications	3%	1
Uncategorized	3%	1
end lean six sigma debate	0%	0

Strengths-based respondents (Question 50). Respondents to this question talked to the need for more academic analysis needed regarding better methodologies. This was a bit telling in that there seems to be a concern that strengths-based methodologies are too theoretical and lacking in practice oriented improvements in which the methodologies could be continuously trialed in real world applications and refined via a combined practicum of practice based and academic analysis and learning. AI, while it emanated from and is ensconced in psychology and OD theory, is perceived to be somewhat esoteric theory and its absolutes and application nuances are difficult to identify and describe. Developing meaningful metrics of organizational conditions before and after a strengths-based initiative are needed to be able to develop and use ROIs in selling the processes to hard data businesses. The lack of consistency in what AI is and how it is deployed gives concern that it is too dependent on particular facilitators, and this limits its capacity to be broadly used, advertised and used in business improvement. Conversely some of the respondents cautioned against AI being developed into a process with tools and methods, wanting to keep it adaptive and with situationally appropriate custom applications.

A number of the respondents suggested melding problem-based and strengths-based approaches, either in applying problem-based at points such as the AI design phase, or as needed in a situationally appropriate manned dependent on the organization's needs and best case applications. It was recognized that AI was not appropriate for all situations and a better means of determining its appropriateness is needed. There was a perceived need to make AI more data driven and to find means to acquire and utilize appropriate data and analytics. AI used for innovation was seen as a needed and appropriate use. Without necessarily developing a specific training program and a certification for AI facilitators, there was perceived a need to further develop facilitators and for them to understand that AI needs consistency and further

documented exploration and recording of engagements, what has worked and what has not worked, and to develop a comprehensive record of successes and failures. Practitioners were advised against force fitting strengths-based approaches and to work with specific organizational circumstances and needs. While there is perceived to be a need for more consistent training and development of facilitators / practitioners, it is also noted that new AI facilitators are frequently too rigid and inflexible. Overall, AI is perceived to need a much stronger business orientation and lure, and this will not be achieved without meaningful metrics, ROIs, success stories, and a movement away from what it perceived to be a too academic orientation.

Table 5.12 describes the number of coding incidents for Question 50. The coding incidents number and percentage are simply the number of respondents to their question responding in a particular manner and accordingly the percentage of respondent answering.

Table 5.12
Coding Incidents for Question 50

50. How could strengths-based improvement methodologies be improved?	**Code %**	**Number Applied**
academic analysis needed	15%	4
metrics before after	14%	4
AI facilitator dependent	11%	3
combine with PS	11%	3
truly understand AI	11%	3
consistency in what AI is	7%	2
develop AI business sell	7%	2
don't force fit them	7%	2
focus on org target	7%	2
keeping it adaptive	7%	2
not making AI a tool	7%	2
operational orientation	7%	2
research AI intervention	7%	2
see AI as a choice	7%	2
use learning tactics	7%	2
Uncategorized	7%	2
AI not an ideology	3%	1
AI not for all org issues	3%	1

AI too theoretical	3%	1
ID client needs better	3%	1
address everyday PS needs	3%	1
don't "certify" AI	3%	1
evolve to use more data	3%	1
implement AI with Lean	3%	1
improve AI "design" phase	3%	1
integrate w other work	3%	1
know org's AI readiness	3%	1
new AI'ers inflexible	3%	1
org culture of AI	3%	1
prep for "Design"	3%	1
share AI success stories	3%	1
strong business focus	3%	1
train/coach participants	3%	1
use for innovation	3%	1

Merging Problem-based and Strengths-based Methodologies from the Problem-based Practitioner's Perspective

The potential for merging problem-based and strengths-based methodologies was asked of the problem-based methodology respondents. First, it was asked how could these two methodologies be effectively combined. Second, it was asked how would the respondent recommend these two methodologies be combined. In asking could the methodologies be combined, the respondent(s) was asked to consider and describe the net benefit potentially derived from the combination. In responding to how the subject matter expert recommended the combination of the methodologies be achieved the respondent was free to consider complete merging of the methodologies, sequencing or flipping between methodologies, performing diagnostics of the entity considered for improvement and selecting the appropriate methodology, or any other potential option for combined or integrated use.

Solid strategy for organizational improvement. Respondents stated that in team development it is essential to have a combination of solid strategy of what you want the team to

look like and what they are intended to accomplish. Leaders who develop and build the strengths-based team must have continuous process improvement experience and work to build the program plan around innovation and execution. It was recommended practitioners spend ample time researching company history and knowledge finding best practices then utilize that knowledge management to create the process improvement cloud.

> RES 26: A combination of solid strategy of what you want the combined team to look like and what they will accomplish. Have a good leader to coordinate building the strength team with CPI experience. Build your program plan around innovation and execution. Spend ample time researching company history and knowledge finding best practices then utilize knowledge management to create the cloud. Once the cloud is there, pull in all SB and PS Improvement resources to collaborate and create leveraged opportunities to improve strategically targeted areas of the company.

Once the cloud has been developed, pull in all strengths-based and problem-based improvement resources to collaborate and create leveraged opportunities to improve strategically targeted areas of the company. It was stated as important to tell a story valuing organizational assets and starting the engagement with participants early and transparently in the process. Assuming a baseline is already established using strengths-based methodologies, this baseline and already existing data can feed into problem-based improvement methodologies. A respondent believed it important to define the organizations core competencies and focus teams on the application of these strengths identifying gaps in strengths and expanding the core competencies as needed jettisoning activities and work that is inconsistent with the core competencies.

Facilitator and leader / leadership training. Many respondents stressed the need to assure change projects are steered by true leaders. It was seen as essential to assure the merging of both problem-based and strengths-based skills in multi-functional improvement teams. Several respondents believed that depending on the practitioner in many ways they already are, but for those where this is not so, it would come back to education on each of the tool sets and communication of the benefits, along with contextual education and reminders of the

fundamentals of what the business itself and both improvement methodologies are ultimately trying to achieve.

> RES 5: Depending on the practitioner I think in many ways that perhaps they already are, but for those where this is not so, it would come back to education on each of the tool sets and communication of the benefits, along with contextual education and reminders of the fundamentals of what the business itself and both improvement methodologies are ultimately trying to achieve.

> RES 17: Put more people who know the methodologies in leadership positions rather than traditional MBA's or sales or financial people. Have a well-qualified problem solving methodology integrator who can build a customized CPI effort.

Intertwining the best of the methodologies. Respondents thought it possible to intertwine the principles of strengths-based methodologies within problem-based methodologies and building on the strengths of both methodologies. The integration of Lean and Six Sigma was pointed to as an example. When practitioners started teaching the principles of Six Sigma, Lean was considered the other and potentially more inferior methodology. A classic case of this thinking was the training entity identified as the Six Sigma Academy, which then migrated to be called the Strategic Project Management and then the Lean Six Sigma Academy as they saw opportunity to integrate the two methodologies.

> RES 12: By intertwining the principles or strength based methodologies within problem solving methodologies and building on the strengths of both methodologies. I take the integration of Lean and Six Sigma as an example. When we started teaching the principles of Six Sigma - Lean was considered "the other and potentially more inferior methodology. A classic case of this thinking is the "Six Sigma Academy" which then migrated to the 'Strategic Project management" or Lean Six Sigma Academy as they saw fit to integrate the two methodologies.

Understanding the strengths and benefits of each tool or process step / phase regardless of which methodology it came from could permit the project leader to select the appropriate tool or method at the appropriate time. Several respondents suggested integration be accomplished via their merging or expansion/clarification within accepted performance criteria, e.g. Baldrige, Shingo, etc.

> RES 4: By expansion/clarification within accepted performance criteria (e.g. Baldrige, Shingo). This may encourage interested organizations to think critically about these topics as they consider their preparations/readiness to apply for a prestigious award.

This integration within other performance criteria may encourage interested organizations to think critically about these topics as they consider their preparations/readiness to apply for a prestigious award. Another potential option for the merging of the methods was to motivate the problem-based teams and then to help the problem-based teams to come up with innovative solutions through encouragement and working on their inherent strengths, leading to the realization of their potential. If a baseline is already established using strengths-based methodologies and the organization has established a level of comfort and confidence in it, the existing operational data could feed into problem-based improvement methodologies and improvement approached using problem-based methods.

> RES 17: Assuming a baseline is already established using strength-based methodologies, I believe this baseline and already existing data can feed into problem solving improvement methodologies.

A respondent considered that the questions might not be one of merging or integration as much as could they be joined together and used in tandem but independently as needed. A respondent stated that it could be a better approach to the integration of strengths-based and problem-based methods if depending on the problem specific strengths were identified as helpful and then sought out or developed allowing the development of the strength to encroach into the negative or problem area.

> RES 26: I don't know if they could be merged so much as they could be joined together, i.e. they are used in tandem but independently.

> RES 27: I believe it would take time to formally merge - and could prove problematic as strength continued to change over time. Perhaps it would be better if, based on the problem specific strengths were identified as helpful and then sought out or developed.

Improved action implementation methods and practices. It was recommended that there be indices developed related to supporting and implementing impacted organizational structures so that changes can be monitored and measured to determine potential impact of changes to the

key success factors of the project. In conjunction with the usage of the indices, a greater risk management component associated with organizational dynamics could be developed and used to monitor and control actions undertaken to achieve the improvement project's key success factors.

> RES 5: There must be an indices related to supporting, implementing and impacted organization structures so that changes can be monitored and measured to determine potential impact of changes to the key success factors of the project....essentially a greater risk management component associated with organizational dynamics.

It was described that foundational to improving implementation methods and practices it is necessary to develop and establish the utilization of strengths-based and problem-based team selection as a standard practice.

Merging Problem-Based and Strengths-Based Methodologies from Strengths-Based Practitioner's Perspective

The potential for merging problem-based and strengths-based methodologies was asked of the strengths-based methodology respondents. They were first asked regarding could they be effectively combined and secondly how would the respondent recommend they be combined. In asking could the methodologies be combined the responded was asked to consider and describe the net benefit potentially derived from the combination. In responding to how the subject matter expert recommended the combination of the methodologies be achieved the respondent was free to consider complete merging of the methodologies, sequencing or flipping between methodologies, performing diagnostics of the entity considered for improvement and selecting the appropriate methodology, or any other potential option for combined or integrated use.

AI is not a tool, it is a worldview. There was a perspective presented by one respondent that there was no possible way problem-based and strengths-based methods could be merged, as they inhabit two different worlds. The respondent said that others will say yes and point to work

they have done with Lean and Six Sigma using AI as examples of where this has worked, but AI is a worldview, not an organization development tool.

> RES 7: No - they inhabit two different worlds. Others will say yes and point to work they have done with Lean and Six Sigma using AI as examples of where this has worked. I see AI as a world view, NOT an OD tool. I do though recommend clients that they can get more from those problem-focused tools if they set them in an appreciative context, but that is not about merging them, it's about keeping them separate and joining them appropriately. So, merging just doesn't make sense to me.

She does though recommend to clients that they can get more from problem-based tools if they set them in an appreciative context, but that is not about merging them, it's about keeping them separate and joining them appropriately. She stated that merging makes no sense to her, and it was her position that if you ask Lean gurus in the UK about AI, they will act as though a vampire has bitten them.

Consider the nuances of language. A respondent offered that the approach one should use here is how one talks about it. It was recommended to avoid framing the work as "problem-based." It was further recommended that integrating "lean" into an organization can be described as "working to make us better" similar to the way team development is described. Considering the power of language powerful we don't need to label something as a problem, but rather that going through a process can make us more "effective" or "efficient" or "save significant resources." And presenting it not as a problem, rather we are going to learn a new or different way to do something.

> RES 19: I think the approach one should use here is how one talks about it...I wouldn't frame the work as "problem solving". Integrating "lean" into an organization can be described and spoken of as "working to make us better" just as team development can be talked about this way...language is powerful...we don't need to label something as a problem...but rather; that going through a process can make us more "effective" or "efficient" or "save significant resources"...it isn't that it is a Problem...rather we are going to learn a new or different way to do something.

One respondent considered that problem-based works from a deficit model, and AI works from an opportunity, potential model. She stated that she has seen management consultants try to present AI from a problem-solving perspective in a workshop. The workshop went horribly

negative, but she knows one senior manager who was trained up in work-outs at GE and she manages to run problem-solving work-outs with her team and keep them positive.

> RES 12: Problem solving works from a deficit model and AI works from an opportunity, potential model. I have seen management consultants try to present AI from a problem-solving perspective in a workshop and it went horribly negative. I have no first-hand experience but I know one senior manager who was trained up in work-outs at GE and she manages to run problem-solving work-outs with her team - and keep them positive.

Integrate them in practice as appropriate. A respondent adamantly stated, "Yes", describing his use of problem-based approaches and saying he could have as easily answered the problem-based methodologies part of the questionnaire. Strengths-based methodologies are about identifying value or appreciating (A), creating a shared vision (V), and then making that vision real or actualizing (A) = AVA. He described working with a department of a large corporation that identified a dramatic need for change to match their future environment. He used problem-based methodologies first and then once he had an initial direction, used AI to rally the remaining and new members of the team. He commented that the marriage worked very well.

> RES 15: Yes. I use problem-solving approaches and could have as easily answered the other side of this questionnaire. SBIM is about identifying value or appreciating (A), creating a shared vision (V) and then making that vision real or actualizing (A)--AVA. I actually worked with a department of a large corporation that identified a dramatic need for change to match their future.

A different respondent stated that he mixes the strengths-based and problem-based methodologies because most of the time there exist big problems to be solved before doing an AI program.

> RES 4: I mix the two anyway because most of the time there are real big problems to be solved before doing an AI program.

A respondent said that she often uses a seamless 'flipping' approach when transforming from problem-based to strengths-based methodologies.

> RES 5: I often use 'flipping' when transforming from problem solving to strength based.

A respondent said that he does, as long as the problems are still relevant, because sometimes using a strengths-based approach makes some of the old problems irrelevant, so how the two are used together is the real art of making the integration work. The respondent stated that it was possible but might be difficult simply because the starting points of problem-based and strengths-based methodologies are so different, that merging the two methodologies will be very complicated. He added that the only situation where he sees it is possible is the situation when the process is completely broken. In the case of the completely broken process, he would fix the process using problem-based methodologies and once it is working, refine it further using strength-based methodologies.

> RES 6: Yes, as long as the problems are still relevant. Sometimes using a strength based approach makes SOME (not all) of the old problems irrelevant, so how the two are used together is the real art of making the integration work, in my opinion. Sometimes the process is so broken that only problem solving can fix it.

A respondent stated that in actuality, they already are, and that strengths-based practitioners like to think they rise above problem-based methodologies, their clients and participating employees come with what they perceive as problems and then the strengths-based methodologies practitioner then reframes it as a starting point thereby avoiding quantitative analysis before dialogue. Once the reframing has been accomplished comparisons of old/new or technical/human or anything else rise to the surface, ROI is measured, poor performers or less competent managers are identified, as they would have been using pure play problem-solving methodologies. It was described by a respondent that strengths-based practitioners including David Cooperrider are finding ways to keep the conversation on the high road while merging into strengths-based methodologies data that shows threats and weaknesses. It was pointed out that sometimes individual practitioners adopt a discrediting attitude toward the methodology they are not employing, and this attitude has been the source of inner institutional conflict.

> RES 26: In actuality, they already are. Strengths based practitioners like to think they rise above problem solving methodologies. Their clients and participating employees come with what they perceive as problems. We can reframe as a starting point and avoid quantitative analysis before dialogue. Along the way, however, comparisons of old/new or technical/human or anything else rise to the surface, ROI is measured, poor performers or less competent managers are identified. Strengths based practitioners (including David Cooperrider) are finding ways to keep the conversation on the high road while merging data that shows threats and weaknesses.

Another respondent stated that strengths-based and problem-based methodologies certainly could be merged, adding that he does it as a matter of practice and is always amazed at what can be accomplished when doing so. It was pointed out that at their base, they share the desire to move forward and create new processes / products / interactions / ideas. In addition, Lean and Six Sigma specifically are coming out of strengths-based principles so it is only a matter of changing how they are practiced on the ground. The respondent believes that problem-based methodologies are appropriate and well suited to working with machines and physical systems, and that strengths-based methodologies are appropriate for working with human systems. Saying further he has seen "lean" and "total quality" approaches be extremely useful in implementing cost-savings and production improvement that have been envisioned through a strengths-based change initiative.

> RES 1: It certainly can! As a practitioner of the merging methodologies, I am always amazed by what can be achieved. At the base of it, they share the desire to move forward and create new processes/products/interactions/ideas. In addition, Lean and Six Sigma specifically are coming out of strength-based principles so it is only a matter of changing how they are practiced on the ground (not a small ask...I am aware!)

A respondent expressed concerns that a problem-solving approach may override the power of a strengths-based methodology since there are some occupations that naturally focus on the negative side of life (e.g. auditors, internal affairs, etc.). The inclination to focus on the problem vs. the strengths or positive aspect of the situation may spread to an organization development effort as well with the key in how you define the problem. The respondent had concerns that a problem-solving approach may override the power of a strengths-based methodology since there

are some occupations that naturally focus on the negative side of life (e.g. auditors, internal affairs, etc.). The inclination to focus on the problem vs. the strengths or positive aspect of the situation could also impact organization development efforts. It was stated that if you succeed in defining where you want to go a lot of the analytical skills from the problem-solving focus can be applied in a more future oriented way that takes away the blame which often is an issue in working with problem-solving methods in social settings, as the workplace is for instance. Saying further it would require a lot of work to get everyone on the same page and bought into it, that participants would need to understand that the methodologies are really trying to get to the same goal (change); it's just that they go about it differently.

> RES 20: Yes!! Check out Lean-Based Appreciative Inquiry of David Shaked (I may have misspelled his name). I have concerns that a problem-solving approach may override the power of a strength-based methodology since there are some occupations that naturally focus on the negative side of life (e.g. auditors, internal affairs, etc.). The inclination to focus on the problem vs. the strength or positive aspect of the situation may spread to and OD effort as well.

Both support a learning organization's cultures. A respondent stated that he has been trained in and used AI and TQM and other systems approaches over the years, and he believes in both and continues to look for linkages. He describes that the best he has come up with in terms of linkages is that they have staged and circular approaches, which is a philosophy that discovery / assessment is ongoing and that each result is an opportunity to learn so both support learning organization cultures. When he approaches more traditional problem-based methodology supporters with the fact that both methodologies support learning organizations, he can sometimes create a bit of common ground.

> RES 22: I have been trained in and used TQM and other systems approaches over the years - I believe and continue to look for linkages. The best I've come up with so far is that they have staged and circular approaches - a philosophy that discovery/assessment is ongoing and that each result is an opportunity to learn - so both can support learning organization cultures. When I approach more traditional problem based supporters with this, I can sometimes create a bit of common ground.

Post-survey analysis interviews with subject matter expert practitioners and key informant. Upon completion of the survey of problem-based and strengths-based methodology subject matter experts and the subsequent data analysis and sense-making, the researcher interviewed three subject matter experts having a level of expertise in both problem-based and strengths-based methodologies asking for their review and perspective relative to the findings, analysis and sense-making. This approach to post-survey analysis subject matter expert assessment was carried to discussion with the researcher's key informant.

Post-survey SME interview with Dr. Angelien De Vries. Dr. De Vries was interviewed separately from the other two SMEs due to scheduling constraints. Her background includes a PhD in psychology, teaching as an adjunct professor and working as a business consultant. She works primarily in market analytics and in the strategic improvement of retail businesses. She and the researcher have worked as colleagues in the past, but currently there are no business or school related interactions ongoing. Dr. De Vries has been trained in the use of AI and has used it successfully in various engagements over the past four years. She is also trained in Lean and Six Sigma at a Green Belt level.

When she reviewed the survey results, analysis and sense-making she was not surprised by the responses or the conclusions. The responses to particular questions that had a range of response did not surprise her either. She believed the responses singularly and in total were logical and the analysis on target. Her preferred means of adding reliability to the survey responses, analysis and sense-making was to describe in detail her own experiences and position on the topic(s) under research.

She reports to have used one method or the other in various engagements depending on the specific improvement needs. When she was asked if concerns arose in selecting and or using

one method or the other, she responded that when working with problem-based methods there were concerns on occasion that indicated that various participants wanted it known that the problems being analyzed and worked on were either not of their making or were caused by circumstances beyond their control. On occasion, it was difficult to get team members to engage in the problem-based process because they believed that they were not really improving the business in the long-term. She could recall one team member telling her that they had worked with problem-based methods for the last few years, and it seemed that every time they solved a problem two more surfaced.

Dr. De Vries finds AI to be more engaging and uplifting than the problem-based methods that she has used. She has found that AI by seeking to identify /organizational/operational excellence and building upon it is a very positive activity that allows participants at all levels of the organization to readily engage with, without fear or recrimination or blame. She finds that the participants truly enjoy the process of identifying the points of excellence that they have witnessed or be a part of and truly enjoy being identified with developing a solution path that takes them back to operational excellence – essentially recapturing the best of the past and claiming the best of the current process or function. It is a positive thing to be so identified with a business that you recognize and appreciate the good. She has yet to find anyone who does not desire to either return to a better state or maintain current excellence.

She also reports that people seem to strive to make their voices heard and try to assure that their perspective relative to knowing good when they see it and knowing how that differs from current state is recognized. In her problem-based activities, there is frequently a period of silence when the team and its objectives are forming. People want to fix problems, but they don't want to be identified with the problem itself and don't want to speak too aggressively about

or against the problem for fear of finding that they are criticizing a vested interest of senior management. It takes work on the part of the team leader and facilitator to move the group past the personal and political aspects of the problem and to focus on the issue itself. She admits though that when, in an AI engagement, she gets to the design phase there seems to be little in the way of tools or process for the participants to use to best develop the improvement or the path to be taken to develop and implement a robust improved business state. She has on occasion felt like she developed and facilitated an organizational will, desire, and energy in going through the defining, discovering and dreaming phases only to find that the necessary process and tools are lacking to truly move effectively into and through the design stage. She says it's a bit like, "OK, team, here we go!!" and then leaving them adrift as to what to do next. In the absence of objective analytical process tools for developing the new design, when she facilitates the movement into and through design, it feels like she is taking them to a point that she has predetermined, versus facilitating their own development of design to best fit their own unique needs. Otherwise she is almost completely sold on the AI process for organizational improvement and culture changes. She states that there are times where you are facing a problem that needs to be solved and there are rigorous and proven methodologies for doing so. As an example of what Dr. De Vries would use when, if she was asked to solve a problem identified as there being three very similar customer service areas, two of which performed at the same high rates of production and one differed in producing at a much lower rate, she'd without hesitation begin her work using Lean Six Sigma tools and Value Stream Analysis as a first step. However, if she were asked to determine why a customer service area was losing customers, bickering amongst themselves and just didn't seem to be in line with the overall organizational strategies, she'd without hesitation use AI. She stated that she has a level of adequate proficiency

in the use of both problem-based and strengths-based methods. She has sufficient education, training and practice to support that claim.

Dr. De Vries stated that she is leaning toward believing that an integration of both problem-based and strengths-based methods could be beneficial and hopefully powerful. She further stated that although she is the researcher's colleague, their work is not at this point combined or codependent and that she remains objective and independent in her thoughts and input. She works primarily in the Benelux region and her work has involved business improvement for a number of the larger businesses in the area. The industry segments have included publishing, retail, insurance, and manufacturing. Some engagements have been solely problem-based and some have been solely strengths-based activities. But more and more, she is beginning to see benefits in, when using problem-based, looking at problems from their positive side, and when using AI, bringing analytical tools from her problem-based toolkit into the design phase. It adds a degree of complexity to do either, and she believes it will take some more time for her to be truly effective in combining them. She believes that when she has combined them she has been successful in doing so. Her sense is that when they were combined she got results that were better than when she did not combine them. However, she has no way of knowing that because, obviously, once they have been combined you do not know what results you would have had if they had not been combined. They were combined for cause and reason, and their combination yielded positive results.

Dr. De Vries believes there was potential and merit in the thoughtful and purposeful integration of problem-based and strengths-based methods. She does not believe it would be necessary for each of consulting her engagements. She stated sometimes it's a non-complicated people issue that AI can address, sometimes it's just a problem and needs to be fixed and Lean

Six Sigma will do fine. But sometimes she faces a large complex organizational concern and a melding of problem-based and strengths-based methods is effective and ideal.

Dr. De Vries has looked at problems from their positive side and has used problem-based methods to provide process and structure to the AI design phase. She has not used the option of dividing an engagement into two separate and parallel activities, initiating a higher level strategic AI initiative to improve cultural issues and concurrently initiating a lower level tactical Lean Six Sigma initiative to identify and resolve operational problems – but that's only because she has not worked an engagement that lent itself to such. As far as the option for flipping between problem-based and strengths-based methods in a single engagement, she has no idea how to do that and believes that it would be prohibitively complicated – unless she does not really understand what is being described in flipping between them.

In summary, Dr. De Vries does integrate problem-based and strengths-based methods and believes that doing so provides positive results. It is not done without pre-work and effort and is not needed in every application – but when it is needed, she believes it helps. She has used problem-based tools to add rigor to the AI design phase and has not experienced downside as long as she used the correct tools in the correct manner. Her review of the survey results, analysis and sense-making was that it was comprehensive, accurate and on target, with results having the potential to advance process and organizational improvement methodologies.

Post-survey joint interview with SMEs Dr K. Abjit Gupta and Dr. Thomas Betancourt.

Dr. Gupta has a PhD in a blend of mathematics and decision sciences, and he is a Lean Six Sigma Master Black Belt and an improving AI practitioner. Dr. Betancourt has a PhD is in Analytical Chemistry, and he is a practicing Black Belt. Dr. Betancourt is learning about AI and has accompanied Dr. Gupta and his mentor in various AI consulting assignments. Both reviewed

and commented on the survey responses, analysis and sense-making and shared their consulting experiences in the fields of problem-based and strengths-based methodologies.

In reviewing the survey results, analysis and sense-making, Dr. Gupta commented that he really didn't have much to add to it, it appeared comprehensive and he agreed with it. Dr. Betancourt echoed Dr. Gupta's comments. Dr. Betancourt proclaimed at this point that while he did agree with the analysis and sense-making he didn't believe either approach, i.e., problem-based or strengths-based methodologies, were all that complex and that the potential for merging them was more a matter of just doing it. And, with that said, he didn't believe it would be difficult to flip back and forth between the two in a single engagement. Dr. Gupta did not agree believing that Dr. Betancourt had underestimated the potential complexity inherent in doing so.

Dr. Betancourt stated that he has used the mechanism of identifying the positive side or corollary of problems and has found it to be more engaging and interesting for the team members. He had an assignment in which he was charged with improving the retention of clients for a major international automobile post-market services group. It would normally, in a problem-based methodology, be approached via identifying why those they lost, left the group. Rather than approaching the problem from the negative, Dr. Betancourt spent time identifying why and how members were initially attracted to join and why the members stayed year-after-year once joined. He then built upon the attracting and retaining strengths of the group and successfully encroached into the negative space of those departing. He and the group's leadership and members were very pleased with the result; a result that he believes was better than would have been achieved had we worked the problem from the negative of why the group was losing members. Dr. Betancourt has not had an opportunity to use any of the other potential paths.

Dr. Gupta reported that he has used the method described by Dr. Betancourt on several occasions with similar results as those he described. But, he has not always been able to re-frame a problem in the positive and have the issue retain its organizational impact and perceived importance, but when he can do so he believes it has helped the organization drive to a quick and effective solution. Where Dr. Gupta's experience has differed from that of the researcher, Dr. De Vries, and Dr. Betancourt, is that he has recently begun a major contract in which he will be developing the parallel paths of running separate problem-based and strengths-based initiatives. Dr. Gupta will be overseeing the project and personally conducting the problem-based component. He is subcontracting the AI facilitation portion to an OD professional who is an AI practitioner that he has worked with in the past. Dr. Gupta has already begun the problem-based initiative because the business was experiencing some severe cash flow and operational problems. The AI initiative, which is aimed at returning to a more positive cultural climate will initiate within the next several weeks. He has already met with leadership and has had one all employee meeting and several departmental meetings to describe the overall initiative and its elements. Dr. Gupta is quite confident that the two initiatives will operate in parallel, achieve positive results and experience no impedance or disruption as a result of their concurrent flow. He stated that he has not always found it possible to effectively restate problems in a positive manner. But that's the only negative he has seen regarding the merging of problem-based and strengths-based methods, and that was more of an inability to enact it versus it being initiated and not being effective. He believed that important to the current research findings.

Dr. Betancourt interjected that he believes, overall, that as long as the facilitator has the tools and expertise, takes a predetermined the path and has executed effectively there is no downside to the integration of problem-based and strengths-based methodologies and there is a positive upside

due to the participant enthusiasm and engagement associated with strengths-based methodologies. Both Dr. Gupta and Dr. Betancourt concluded that the survey results, analysis and sense-making were precise, accurate and potentially capable of advancing both the problem-based and strengths-based methodologies.

Post-survey communication with key informant, Mr. David Shaked. Concurrent with undertaking this study, the researcher identified a scholar-practitioner in the UK, Mr. David Shaked, Managing Director at Almond Insights, who is an independent business consultant working on his own developing and implementing strengths-based Lean Six Sigma. Mr. Shaked has the unique background of being trained as a Six Sigma Black Belt as well as being trained as an AI practitioner. He has an MBA and is a researcher as well as a practicing consultant. Through numerous discussions / communications with Mr. Shaked throughout the development and execution of this study, the researcher has been able to consider and refine the approach to reviewing literature, developing the survey question master, and developing the analysis of the as-complied survey and interview data.

After the survey and post-survey interviews were completed, and the analysis almost completed, the researcher sent major sections of the survey and interview results and the sense-making analysis to Mr. Shaked requesting his review and comments. The following input was received from Mr. Shaked via email October 25, 2011, yielding additional thoughts and approaches regarding the pragmatic and effective integration of strengths-based and problem-based methodologies:

> AI Principles – to me, AI is primarily the AI principles as they are applied to anything that has worked well in the past. AI is not necessarily the 5D process or any other specific process. Once we look at AI from a principles point of view, we free ourselves to apply these principles to other processes that we like/appreciate and that have worked well for us in the past (e.g. DMAIC, PDCA etc.) which is what I have done with my practice of Strength-based LSS.

'Strength-based' is more than AI – there is a huge potential for the use of complimentary approaches such as Solution Focus, Positive Psychology, coaching and Positive Deviance. That is why I coined and prefer to use the term 'strength-based Lean Six Sigma.

You can use AI or even better, SF/PD for innovation at the 'I' stage of DMAIC - The starting point for innovation is in asking myself, now that I understand the problem and have identified its root causes, when is the problem or the root cause not there? What helps those situations happen? Many new answers surface then. This offers an expansion of your suggestion to use AI up front.

I got the impression from the data and from the interviews that your respondents believe AI doesn't work as well in the business world or that it isn't suitable for 'hard' change. In my view, AI works very well and is most suitable to 'hard' business-related issues. The fact that there aren't a lot of case studies out there with clear before and after measurements is only an outcome of: a) Lack of awareness to their importance, b) Most early adopters of AI and PD focused on social change and 'soft issues' c) It is only a matter of time (LSS has been around in one form or another for more than 70 years...)

We tend to think of change as a process with an end result and clear steps. The fact is that when it comes to changes in human systems (and that includes even the most clearest and well–defined human-based processes), the change initiative we embark on never follow such a clear process. We should look at them as 'messy learning processes' with peaks and troughs along the way instead. This applies to DMAIC just as much as it applies to 5D.

There is a lot to say about the principle of social construction and how it applies to problem solving. When I learned about it and started diving in it really challenged many beliefs I held very strongly as an MBB.

Other options to combine AI and Problem solving which you may want to consider (I have practiced many of them and it all depends on the client situation):

- Using strength-based LSS tools (e.g. strength-based process mapping, fishbone analysis, success root analysis using time plots and other analytical tools)
- Changing the questions we use during the PS process to strength-based questions
- Reframing the problem to an opportunity (using problem-to-opportunity tree process for example)
- Using strength-based approaches to maintain the energy of the PS process – e.g. follow ups, evaluations, planning of next steps based on the successes to date ways to combine:
- Complete strength based approach – Applying AI principles at every steps of the improvement process – resulting in strength-based Kaizen or DMAIC process
- Dreaming an innovative future for the organization and then proceeding to implementation of the vision with 'classic' LSS as and when appropriate
- Starting with Problem solving process for DM& A and using strength-based approaches to support the I and C of DMAIC
- Using AI to evaluate the efforts of problem solving techniques – hugely help maintain the energy.
- Using AI to form stronger project teams while allowing these teams to use classic PS as their primary method.
- Pick one or few AI principles and apply them to a PS initiative – e.g. wholeness

Mr. Shaked reviewed the survey results, analysis and sense-making finding them accurate and informative. He is a proponent of and a leading edge expert in the merging of problem-based and strengths-based methodologies, calling this research excellent and beneficial.

Summary

Mr. Shaked, key informant, and SME's Dr. Angeliene De Vries, Dr. Abjit Gupta, and Dr. Thomas Betancourt, reviewed the survey results, analysis, and sense-making and were in agreement that the research appropriately queried problem-based and strengths-based SMEs relative to the strong points and weak points of each methodology and their perspective of the potential for integrating the methodologies along with the recommended paths for and benefits of integration. The findings demonstrated that the strong points of each could potentially address the weak points of the other, and there were perceived benefits in doing so. It was also determined that practitioners of both problem-based and strengths-based improvement methodologies are aware of their method's strong and weak points and are looking for effective means of working around the negatives or augmenting their practice through adding various tools and processes as needed and as appropriate.

A number of SME survey respondents have already been experimenting with merging various elements of problem-based and strengths-based methodologies and have developed interesting means of applying switching mechanisms, indicators for which to apply when, and decision points for which to apply on a situationally driven basis. It was also telling that while some had strong preference for one methodology versus another, most were open to considering the potential for their integration. This openness to consider their integration appeared to be somewhat stronger on the parts of SMEs with extensive field experience trying to make their methodology work day after day in the real world. From the responses received by both

problem-based and strengths-based respondents it is evident that a well-developed means to improve either or both methodologies would be welcomed.

Chapter 6 - Conclusions and Recommendations

Introduction

Improvement methods have typically been either problem-based or strengths-based. Problem-based methods include the use of analytical steps aimed at identifying a specific problem versus observing a symptom of a problem and then driving to root cause of the problem followed by identifying, trialing, and implementing a solution (Marash et al., 2004). Strengths-based methods include identifying past and current successes aligned with and supporting the co-created shared vision of a desired future state, then institutionalizing and building upon them making them the desired norm (Cooperrider et al., 2000). Each approach has strong points and weak points as summarized in Table 6.1.

Table 6.1

Strong and Weak Points of Problem-based and Strengths-based Methods

Problem-based	**Strong Points**	**Weak Points**
	Knowledge creation	Human elements missing
	Objectivity and data driven	Complex methods and training
	Process improvement	High immediate expectations
	Clearly stated customer focus	Needs receptive culture
	Acceptance of problem solving	Can be overly bureaucratic
	Strong analytics components	Reliant on team positive dynamics
	Design tools and steps	Analytics or discipline missteps
	Stepwise application of methods	Needs top-down initiation
Strengths-based	**Strong Points**	**Weak Points**
	Discovery of new ideas / means	Not seen as fitting business culture
	Creates long term lasting change	Not a quick fix
	Starts from shared vision	Not useful in a crisis
	Dominate paradigms challenged	Requires courage to sustain
	Positive focus propels team	Not culturally engrained
	Identifies value in system	Misinterpretation of uses
	Stimulates innovation / creativity	Threats and weaknesses framed away
	Invites people / builds goodwill	Starting from a negative/deficit focus

Rather than reinventing the improvement field, there exists the potential for deliberate and purposeful selecting and using of the strong points of one approach to augment weaknesses in the other. This research studied the integration of problem-based organizational improvement methods with strengths-based constructionist methods for a more holistic approach to developing and implementing organizational improvement.

In this study, the researcher explored and evaluated if it is possible to effectively integrate problem-based business improvement methods with strengths-based constructionist methods. And, if so, was there a holistically derived benefit beyond that which could be contributed through using only one or the other of the approaches. Both problem-based business improvement methods and strengths-based constructionist methods could potentially be used in conjunction with and in support of each other. This can provide a solution more complete than either could separately. Typically using problem-based business improvement methods and strengths-based constructionist methods are seen as an either or proposition; therefore, it is seen as accepting as a predicate assumption a field-limiting separatist paradigm.

The research question and its sub-questions were explored through an in-depth survey of 88 subject matter experts (SMEs) and in-depth post-survey interviews of three SMEs and one key informant. The main research question is: How is it possible to design and deploy an organizational transformation methodology that integrates problem-based business improvement methods such as Total Quality Management (TQM) and strengths-based constructionist methods such as Appreciative Inquiry (AI)?

The sub-questions are:

- How can this integrated method provide levels of benefit perceived as greater than either could separately contribute?

- How can this integrated method be recognized by practitioners from either primary orientation as being of increased contribution through their combination?
- How can this integrated method be used and embraced by employees?
- How can this integrated method be clearly communicated to employees across various organizational levels and disciplines?
- How can this integrated method be packaged providing common scalable baseline applicability across multiple industry or business segments?

The answers to these questions formed the basis for determining the feasibility of successfully and beneficially integrating problem-based business improvement methods and strengths-based constructionist methods. They also helped in determining the appropriate action path and mechanisms for the integration of these two methods.

This chapter provides a summary of results and discussion for each question with support from the research findings and literature reviewed. Then, a discussion is presented on the relationship between problem-based and strengths-based methods. Next, recommendations are made for practice improvements future research opportunities. In support of the research findings, a brief discussion on integrative facilitative concepts is highlighted. The chapter closes with limitation and a summary.

Summary of Results and Discussion

An integrated design. How is it possible to design and deploy an organizational transformation methodology that integrates problem-based business improvement methods such as Total Quality Management (TQM) and strengths-based constructionist methods such as Appreciative Inquiry (AI)?

The research indicated that there can exist a slight suitability preference for the use of

either problem-based or the use of strengths-based methods. When improvement needs were in the area of materials loss, broken business systems, or performance variation between common processes or operations, the first choice was for the use of problem solving tools. When improvement needs were clearly in areas of organizational design, cultural change, or business refocus the first choice was for the use of strengths-based methods. Often, there exists so much overlap between compounded improvement needs or lack of clarity as to the actual need that there exists no basis for selection preference and it falls to the training focus of the practitioner to select the improvement methodology.

If a practitioner is only trained in problem-based methods, they are the ones used. Conversely, if the practitioner is only trained in strengths-based methods they are the ones used. Practitioners trained in both methods report that they discuss the improvement opportunity with the stakeholders and through gaining a baseline understanding of the need, select a particular path and follow it or mix and match from their larger integrated toolbox as appropriate. Regardless of which method practitioners are trained in and prefer to apply, there exists integrated means as described in Figure 6.1.

Six Sigma		Appreciative Inquiry	
Phase	**Action**	**Action**	**Phase**
Define	Define the problem through the eyes of the customer	Define the scope of the inquiry, potential impact and resources	Define
Measure	Measure the current state of the process or the objective not met	In narrative form determine the best case experienced	Discover
Analyze	Using the objective and the measurements analyze the negative	Develop and articulate a shared vision of future state	Dream
Improve	Use methods to develop, trial and install improvement	Lay out steps needed to achieve the future state vision	Design
Control	Use metrics, measurements, reporting to maintain the gain	Actions to deliver or realize the vision of the co-created future state	Destiny / Deliver

Figure 6.1 Integrated Model: Six Sigma and AI

As depicted in Figure 6.1 Integrated Model: Six Sigma and AI, in the stepwise DMAIC model for Six Sigma, the first step Define, attempts to define and describe the problem through the eyes of the customer. This step is a reductive activity attempting to eliminate symptoms and other elements from the discussion to narrow the objective to a specific problematic concern. At this point, the team has been formed and the practitioner is attempting to gain with the team's input problem clarity and increased accuracy and precision of issue determination. There is little if any people focus or generative activity, it starts from a negative position framing the problem as such and gaining consensus regarding need to solve the problem.

Through substituting the AI Define, Discover, and Dream phases for the Six Sigma Define step, the practitioner would bring an expansionist approach which looks at what could and should be versus what is missing or broken and have the added generative benefits of team engagement and the co-created shared vision of a preferred future state as a starting point. After that positive starting point is in place, the analytical tools in the remaining Six Sigma process

steps could be brought into play providing rigorous analytics and structured process and tools for improvement design and deployment.

As depicted in Figure 6.1 Integrated Model: Six Sigma and AI, once an AI practitioner and the improvement team has progressed through the Define, Discover, and Dream phases, he or she is working with a co-created shared vision of a desired future state. In the AI phases of Design and Destiny / Delivery, the improvement team takes this shared vision of the desired future state and designs the steps and path for realizing the future state vision. These phases include detailed activities and assignments for building and implementing the improvements needed to bring the future state into being.

The practitioner and the improvement team, once the Design phase is complete, moves into the last phase, Destiny / Delivery, which actually brings the future state into being. The AI Design and Destiny / Delivery phases are intended to provide the tangible reality of the improved state, but it lacks analytical rigor and design and implementation tools. The practitioner is then faced with trying to design, trial, and implement needed improvements to provide the desired future state as he or she best can. As the AI practitioner and improvement team move into the design phase, bringing in the design and implementation tools and methods from the Six Sigma Analyze, Improve, and Control steps would provide necessary analytical rigor, and design and implementation tools. The AI practitioner would have the benefit of AI's initial phases in which there is a generative collaboration aimed at identifying what works best and building upon it before the entity moves forward in determining how to design and implement the steps achieving its preferred future state.

Deploying an integrated design. SMEs, evaluating the potential for a merging of problem-based and strengths-based methodologies, were free to consider any option for their

merging. For example, this could include complete merging of the methodologies, sequencing or flipping between methodologies, performing diagnostics of the entity considered for improvement, and selecting the appropriate methodology or any other potential option for combined or integrated use.

Literature and surveyed SMEs identified the combination of evaluating the organization's core competencies, needs, and problem-based and strengths-based expertise as an improvement initiative's starting point. The determination of the improvement initiative's starting point then drove the organization's approach toward melding problem-based and strengths-based methodologies. Respondents thought it possible to intertwine the principles of strengths-based methodologies within problem-based methodologies and building on the strengths of both methodologies. The integration of Lean and Six Sigma was pointed to as an example of a situation where initially the practitioners of each approach disapproved of the other, only to find, in a blended state they were not only compatible, but they were highly synergistic and cross-supportive.

> RES 12: By intertwining the principles or strength based methodologies within problem solving methodologies and building on the strengths of both methodologies. I take the integration of Lean and Six Sigma as an example. When we started teaching the principles of Six Sigma - Lean was considered "the other and potentially more inferior methodology. A classic case of this thinking is the "Six Sigma Academy" which then migrated to the 'Strategic Project management" or Lean Six Sigma Academy as they saw fit to integrate the two methodologies.

The review of literature demonstrated the challenging nature of deploying an integrated method or design for change. Particular emphasis should be paid to selecting team members having the flexibility and curiosity needed to engage in new approaches and methods that would potentially be developed and refined as an initiative progresses. Leaders and facilitators should thoroughly understand all elements of the new or merged methodology and approach leadership with a transformational mindset. Practitioners need to consider and adapt their new tools,

methods, and incremental steps and phases in terms of using an expanded toolbox. Practitioners also need to be aware of and sensitized to metrics and the power of indices and to the nuances of proper languaging and descriptors. It could be argued that the above identified themes and consideration are applicable to successful deployment of any methodology new to an organization, but the integration of problem-based and strengths-based methodologies brings with it an underlying perception that a practitioner is attempting to mix immiscible concepts or elements, such as that of oil and water. The above noted themes and considerations combine to support and facilitate the introduction and deployment of new and integrated improvement methodologies.

Effective team selection. At a more granular project basis, proper team selection is a first imperative in that it is necessary to understand what the team composite needs to look like and be able to early, clearly, and frequently articulate what the team is intended to accomplish. In a blended state, a leader who builds a strengths-based team should have problem-based experience, and a leader building a problem-based team needs strengths-based experience.

There was no avoiding the necessity for a team leader looking to integrate problem-based and strengths-based methods having suitable levels of experience in both methods. The merged bodies of knowledge from both fields were not described by respondents in the form of overlapping Venn diagrams; it was described by several to more resemble intersecting clouds as depicted in Figure 6.2.

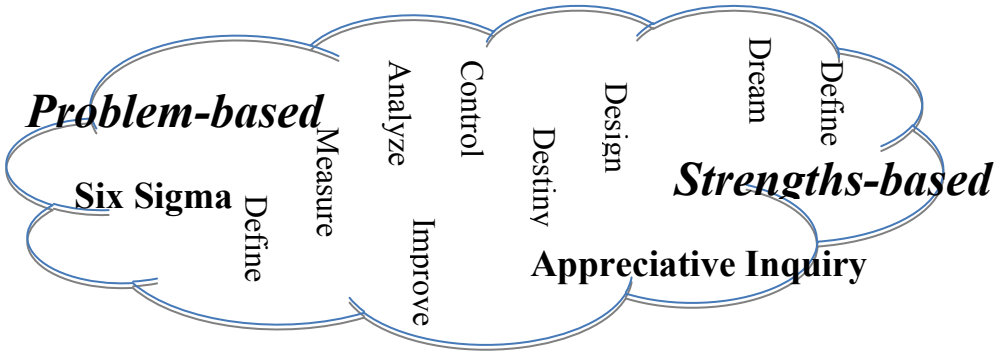

Figure 6.2 Integrated Cloud Image Model: Six Sigma and AI

At the point of intersection, the lines blurred to a joining of the fields, and the cloud image stressed the three-dimensional aspect of their intersection denoting the depth and stratifications inherent in each method.

> RES 26: A combination of solid strategy of what you want the combined team to look like and what they will accomplish. Have a good leader to coordinate building the strength team with CPI experience. Build your program plan around innovation and execution. Spend ample time researching company history and knowledge finding best practices then utilize knowledge management to create the cloud. Once the cloud is there, pull in all SB and PS Improvement resources to collaborate and create leveraged opportunities to improve strategically targeted areas of the company.

Transformational leadership. Essential for the success of change initiatives of any size, whether problem-based or strengths-based, were their capacity to be administered by and identified with true transformational leaders. A transformational leader is a leader that has a vision for the future, concrete and articulated plans for achieving the vision, and is engaging and dynamic with followers (Bass & Riggio, 2006). Transformational leaders truly transform organizations from one point to another in rapid and energizing big picture moves while not ignoring the details and increments of change. Literature and problem-based and strengths-based practitioners identified leaders as change agents and being of primary importance. Respondents from both fields believed that leading change and utilizing blended methods would require transformational leaders because there would be reduced initial familiarity with, and confidence in, utilizing a blended methodology (Dobbs & Walker, 2010).

Several respondents recommended the team leader or facilitator not speak to using a blended or merged approach but to just go ahead and use the blended process as needed. This was particularly the case where the merged approach was one of switching back and forth by using the tools from each method as needed in the specific situation.

> RES 5: Depending on the practitioner I think in many ways that perhaps they already are, but for those where this is not so, it would come back to education on each of the tool sets and communication of the benefits, along with contextual education and reminders of the fundamentals of what the business itself and both improvement methodologies are ultimately trying to achieve.

> RES 17: Put more people who know the methodologies in leadership positions rather than traditional MBA's or sales or financial people. Have a well-qualified problem solving methodology integrator who can build a customized CPI effort.

Understanding each methodology and its potential linkages. Understanding the strengths and benefits of each method or process step/phase, regardless of which methodology it came from, would permit the project leader to select the appropriate tool or method at the appropriate time. Several respondents suggested integration be accomplished via their merging or expansion/clarification within accepted performance criteria, e.g. Baldrige, Shingo, etc.

> RES 4: By expansion/clarification within accepted performance criteria (e.g. Baldrige, Shingo). This may encourage interested organizations to think critically about these topics as they consider their preparations/readiness to apply for a prestigious award.

The integration within other performance criteria could potentially encourage interested organizations to think critically about using the blended methodologies as they consider their preparations/readiness to apply for a prestigious award. This integration of the merger of problem-based and strengths-based methods with other performance criteria would do little, if anything, to add to the benefit from the merger of the methods, other than potentially add to its salability.

A bigger toolbox for practitioners. A respondent took the approach that the question might not be one of merging problem-based and strengths-based methods as much as keeping

them independent and using whichever was appropriate based on the challenges at hand. From practical perspective though, it becomes a matter of semantics at this point because there is no practical differentiation between the two methods being separate and used as appropriate and their being blended. In application, both approaches, merging the methods or using tools from either method as appropriate, mean the same thing. Both sets of methods, tools, and approaches would reside in the practitioner's expanded toolbox and be drawn upon as circumstances and situations warrant.

> RES 26: I don't know if they could be merged so much as they could be joined together, i.e. they are used in tandem but independently.
>
> RES 27: I believe it would take time to formally merge - and could prove problematic as strength continued to change over time. Perhaps it would be better if, based on the problem specific strengths were identified as helpful and then sought out or developed.

Metrics and the power of indices. It was recommended that there be indices developed relating to supporting and implementing impacted organizational structures so that changes could be monitored and measured to determine potential impact of changes to the key success factors of the project. This would provide the same degree of importance and rigor from qualitatively derived organization development initiatives as seen in quantitatively derived operations initiatives. This would aid in calculating ROIs and other means of change-potential valuations. The same respondent also suggested that organizations develop risk management indices that would identify and track risk associated with unsuccessful or slow to take shape organizational change initiatives. These indices could potentially become as compelling to leadership as their focus on ROI.

> RES 5: There must be an indices related to supporting, implementing and impacted organization structures so that changes can be monitored and measured to determine potential impact of changes to the key success factors of the project, essentially a greater risk management component associated with organizational dynamics.
>
> What does "metrics and the power of indices" have to do with the deployment of the integrated design? Write a summary paragraph before going into the next section on language.

Language used for conceptual context. Languaging regarding the two improvement approaches used was thought by several SMEs to be important. As an example, it was recommended to avoid describing their work as either "problem-based" or “strengths-based” and, to instead, focus on describing it as an improvement activity with the facilitator leading the team through an improvement process. And the “improvement” framing itself was recommended, described from a strengths-based perspective, regardless of which tools or methods were situationally applied. All respondents mentioning languaging considered the power of language so impactful that labeling something as “problem” invited the nuances associated with negativity. It was recommended instead, describing initiatives as a pursuit to become "effective" or "efficient" or to "save significant resources" with initiatives framed as “we are going to learn a new or different way to do something.”

> RES 9: I think the approach one should use here is how one talks about it...I wouldn't frame the work as "problem solving". Integrating "lean" into an organization can be described and spoken of as "working to make us better" just as team development can be talked about this way...language is powerful...we don't need to label something as a problem...but rather; that going through a process can make us more "effective" or "efficient" or "save significant resources"...it isn't that it is a Problem...rather we are going to learn a new or different way to do something.

Shared visions facilitated by tool selection. A respondent adamantly stated that strengths-based methodologies are about identifying value, appreciating, creating a shared vision, and then making that vision real or actualizing it. The respondent had worked with a department in a large corporation, which needed significant change to meet its planned future state, and used problem-based methodologies initially. Then, once he had an initial direction, he used AI to rally the existing and new members of the team. The respondent commented that the marriage worked very well.

> RES 15: Yes. I use problem-solving approaches and could have as easily answered the other side of this questionnaire. SBIM is about identifying value or appreciating (A), creating a shared vision (V) and then making that vision real or actualizing (A)--AVA. I actually worked with a department of a large corporation that identified a dramatic need for change to match their future.

Demonstrating either the situationally dependent nature of method or tool selection, or the particular respondent's primary orientation, a different respondent stated that when he mixes the strengths-based and problem-based methodologies, he leads off with problem-based methods because most of the time big problems exist to be solved before doing an AI program.

> RES 4: I mix the two anyway because most of the time there are real big problems to be solved before doing an AI program.

One aspect of the integrated model is that one can flip from problem-based to strengths-based as a way of situationally addressing an issue. For example, a respondent said that she often uses a flipping approach when transferring from problem-based to strengths-based methodologies.

> RES 5: I often use 'flipping' when transforming from problem solving to strength based.

One respondent described the concept of flipping between methodologies as being possible but potentially difficult because the starting points of problem-based and strengths-based methodologies are so different that merging the two methodologies may be very complicated. The respondent added that the only situation where he sees flipping between methodologies possible is the situation when the process is completely broken, in which he would fix the process using problem-based methodologies, and, once it is working, refine it further using strengths-based methodologies.

> RES 6: Yes, as long as the problems are still relevant. Sometimes using a strength based approach makes SOME (not all) of the old problems irrelevant, so how the two are used together is the real art of making the integration work, in my opinion. Sometimes the process is so broken that only problem solving can fix it.

A respondent stated that in actuality problem-based and strengths-based methodologies are already merged, and that while strengths-based practitioners like to think they rise above problem-based methodologies, their clients and participating employees come with what they perceive as problems. Then, the strengths-based methodologies practitioner reframes it in an

appreciative starting point, thereby possibly avoiding quantitative analysis before dialogue. Once the reframing has been accomplished, comparisons of old/new, technical/human, or anything else, rise to the surface. ROI is measured and poor performers or less competent managers are identified as they would have been using pure play problem-solving methodologies.

It was described by a respondent that strengths-based practitioners, including David Cooperrider, are finding ways to keep the conversation on the high road while merging into strengths-based methodologies data that shows threats and weaknesses. It was pointed out that sometimes individual practitioners adopt a discrediting attitude toward the methodology they are not employing, and this attitude has been the source of inner institutional conflict.

> RES 26: In actuality, they already are. Strengths based practitioners like to think they rise above problem solving methodologies. Their clients and participating employees come with what they perceive as problems. We can reframe as a starting point and avoid quantitative analysis before dialogue. Along the way, however, comparisons of old/new or technical/human or anything else rise to the surface, ROI is measured, poor performers or less competent managers are identified. Strengths based practitioners (including David Cooperrider) are finding ways to keep the conversation on the high road while merging data that shows threats and weaknesses.

Overpowering problem-based approaches. A respondent expressed concerns that a problem-solving approach may override the power of a strengths-based methodology believing there are some occupations that naturally focus on the negative such as auditing, legal services, policing, and quality assurance. The respondent feared the inclination to focus on the problem versus the strengths or positive aspect of the situation could spread to organization development efforts being key to how you initially define the problem. This concern is in line with the previously described caution regarding the power of languaging and the need to reframe negative circumstances to a positive perspective. The respondent then aligned with the position of beginning with strengths-based methods to develop a shared vision of the desired future state, and then using the rigor and process of problem-solving methods to achieve the future state. The

generative and team building of strengths-based could be applied in a future oriented way that takes away the blame which often is an issue in working with problem-solving methods.

> RES 20: Yes!! Check out Lean-Based Appreciative Inquiry of David Shaked (I may have misspelled his name). I have concerns that a problem-solving approach may override the power of a strength-based methodology since there are some occupations that naturally focus on the negative side of life (e.g. auditors, internal affairs, etc.). The inclination to focus on the problem vs. the strength or positive aspect of the situation may spread to and OD effort as well.

Dual support for learning organizations. A respondent stated that he has expertise in AI, TQM, and other systems approaches. He believes in them all and continues to look for linkages. He described as a linkage that they have staged and circular approaches, which is a philosophy that discovery and assessment are ongoing and that each result is an opportunity to learn so both support learning organization cultures. The learning organization is an organization with the ability to reflect on, discuss, question, and change its current and past practices. This requires people and groups to meaningfully pursue the study and practice of the disciplines of personal mastery, mental models, shared vision, team learning, and systems thinking (Senge, 1994).

The respondent further described approaching problem-based methodology practitioners with the belief that both methodologies support learning organizations, and stated this sometimes creates common ground.

> RES 22: I have been trained in and used TQM and other systems approaches over the years - I believe and continue to look for linkages. The best I've come up with so far is that they have staged and circular approaches - a philosophy that discovery/assessment is ongoing and that each result is an opportunity to learn - so both can support learning organization cultures. When I approach more traditional problem based supporters with this, I can sometimes create a bit of common ground.
>
> End this section with a paragraph that summarizing the answers to the question of deployment before transitioning to the next question. Again, anything from the literature or your findings to support it is helpful. Your Chapter 6 should tie back to the LR and your findings.

How can this integrated method provide levels of benefit perceived as greater than either could separately contribute? A respondent stated that strengths-based and problem-based methodologies can be merged. He does that as a matter of practice and is always amazed at what can be accomplished when doing so. His perception was their sharing the desire to move

forward and create new processes, products, interactions, and ideas allowed for their synergism. Several respondents said that using the strengths of one methodology to overcome the weaknesses of the other afforded better outcomes than either would have yielded separately. As an example that taking a strengths-based approach at the onset of a project in which existing or past excellence was identified and built upon. This would allow the project leader to develop a more committed and engaged team, which could then use the rigor of problem-based tools to drive to and implement solutions. Another took a slightly different perspective saying that if an organization development initiative using AI got bogged down in its design and delivery phases, the facilitator could augment the strengths-based initiative using problem-based tools as appropriate.

> RES 1: It certainly can! As a practitioner of the merging methodologies, I am always amazed by what can be achieved. At the base of it, they share the desire to move forward and create new processes/products/interactions/ideas. In addition, Lean and Six Sigma specifically are coming out of strength-based principles so it is only a matter of changing how they are practiced on the ground (not a small ask...I am aware!)
>
> RES 17: I have used an intermingling of AI and TQM in that as I begin an initiative I try to first get group consensus regarding their shared vision for a desired future state and then use my TQM tools such as Six Sigma or maybe Lean to actually work to develop and implement solutions.
>
> RES 49: I try to use AI as my primary improvement method because of its generative capability and the fact that I have seen common vision solutions evolve that otherwise would not have been arrived at. But I am also skilled in Lean and Six Sigma and if we bog down at the design phase or in our ability to actually implement something, I don't hesitate to bring in the problem-based tools.

How can this integrated method be recognized by practitioners from either primary orientation as being of increased contribution through their combination? Irrespective of which primary methodology, problem-based or strengths-based, respondents self-identified with, the researcher saw a marked difference between responses describing willingness to consider or apply an integrated approach from those working primarily as theorists versus those working primarily as applied state practitioners. Among those working primarily in academic pursuits

some of the self-identified strengths-based respondents appeared less likely to consider the potential for successful integration of problem-based and strengths-based methods due to their seeing the two approaches in terms of their being ongoing yet separate discourses versus as applied-state improvement methods, e.g., TQM and AI.

> RES 20: It will take some creativity and mindfulness to ensure one does not override the other approach. One approach would start at the preliminary interview stage to gather data and information to gain an effective appraisal of the situation. The data-gathering stage is critical.
> Once the appraisal is complete there should be indications of what elements and approaches should go where and when. The unit's inherent strengths should be enough to address the situation and to "solve" the problem.
>
> RES 38: Problem-based methodologies are reductive. Strength-based improvement methodologies can be either reductive or expansive usually not both at the same time). As long as you only use reductive approaches for both they can be merged to the detriment of the organization -- as it DOES adversely impact the expansive approaches of business improvement activities, and it alters the social and behavioral cultural aspects to deemphasize and de-prioritize over time any aspects that are emerging or expansive.
>
> RES 49: No - they inhabit two different worlds. Others will say yes and point to work they have done with Lean and Six Sigma using AI as examples of where this has worked. I see AI as a world-view, NOT an OD tool. I do though recommend clients that they can get more from those problem-focused tools if they set them in an appreciative context, but that is not about merging them, it's about keeping them separate and joining them appropriately. So, merging just doesn't make sense to me.

Consultants from both problem-based and strengths-based methodologies, working day-to-day in an applied state trying to produce deliverables for their clients, appeared more willing to consider integrated methods as long as they produced better results. Academics from strengths-based approaches were relatively rigid in their refusal to accept the potential for improved results from the integration of problem-based and strengths-based, or even to be willing to consider the potential for their successful integration.

How can this integrated method be used and embraced by employees? Respondents were in agreement that introducing a need for change with a strengths-based generative and shared vision approach would allow for a best case starting point for any change initiative, be it primarily problem-based or strengths-based in application. The generative entry portal of strengths-based methods sets the stage for more productive and ready interaction by team

members, and this would enhance employee receptiveness (Cooperrider et al., 2000).

It was also described by several respondents as being necessary to setup the scope and mission of the improvement team in a positive manner while assuring that true problems are not framed away. In this respect, balance was seen to be of primary importance. A means of flipping between the methods could be used when working with AI to apply the rigor and tools of problem-based methods in the Design and Deliver phases. Another example of flipping between the methods could be when using problem-based methods, applying AI Define, Discover, and Dream phases to build team engagement and start the improvement project with a positive expansive seeking of opportunity.

> RES 17: The important thing is to set it up right so people know you're not focusing on the positive at the exclusion of the negative. You must address both to be successful, but it's the way in which you address and move forward that gives you the positive outcomes you are seeking.
>
> RES 38: Through working with strengths instead of problem-based I see a lot of energy in the team that start working with this methodology. There is more action, more commitment, more self-esteem, more power, and more trust.
>
> RES 47: Focusing on the organization or person at their best and moving forward from that point. Creating positive energy needed for positive change. Exhilaration!

It was seen as important that strength-based methods or the integration of strength-based approaches into problem-based methods not be used in a manner that reframes real problems away. The positive energy and engagement from strength-based approaches was noted as providing benefits, but problems as well as strengths-based opportunities need to be addressed.

How can this integrated method be clearly communicated to employees across various organizational levels and disciplines? The general thought expressed regarding communicating an integrated process was one of simply doing it versus describing what was different in the integrated approach from utilizing one method or the other. When describing communications, it was thought to be important to describe what the change would entail (its

scope), why it was going to be done (its need and impact), describe in general the activities (what was going to happen and when), and the expectations (who was going to do what, when, and to what outcome). If employees with awareness of either problem-based or strengths-based methods asked why what they were seeing was different than the norm, it was important to describe why it differed. For example saying, "We thought it was important to describe our desired future state before we started to try to solve the problem." Another example could be, "We wanted to bring in some structured analytical tools for the AI design and deliver phases."

> RES 29: I try not to get too involved in describing and justifying what we are going to do and how to do it. I find that once I have explained what we are going to do why it's important and why they were selected; there are few questions about method. Most of the questions are regarding timing and expectations.
>
> RES 40: So far no one has really cared that there has been a change to either method. It's more about is it working, how do we know when it's done, and what do we need to do.
>
> RES 64: I had a Six Sigma guy come up after one of the targeting sessions and say he liked my approach of looking at the opportunity and that it seemed to help get people on board. I had a person with an AI background ask me why I used some of the TQM tools in the 4D Design step, I explained why, and she said it seemed to work pretty well and that she was just curious.

How can this integrated method be packaged providing common scalable baseline applicability across multiple industry or business segments? Respondents were uniform in considering it was not so much a case of packaging a new integrated methodology as much as understanding the potential for improvement methods selectively using elements from problem-based and strengths-based methods as appropriate, as depicted in Figure 6.1. In order to do this effectively, it necessitated a practitioner becoming skilled in both methodologies. Scalability was not perceived to be an issue relative to the size of an organization in terms of using either problem-based, strengths-based methods, or an integrated format. Respondents stated challenges due to working with large versus small organizations did not change regardless of improvement methodology selected.

As previously described, respondents did speak to applicability of primary improvement methods. For example, problem-based methods were thought to be a great fit for manufacturing process problems. Another example is strengths-based methods were thought to be a great fit for OD initiatives, and after those mutually exclusive end portions of the overlapping Venn diagram were excluded, everything in the middle that overlapped was looked at as being a candidate for an integrated approach as depicted in Figure 6.3.

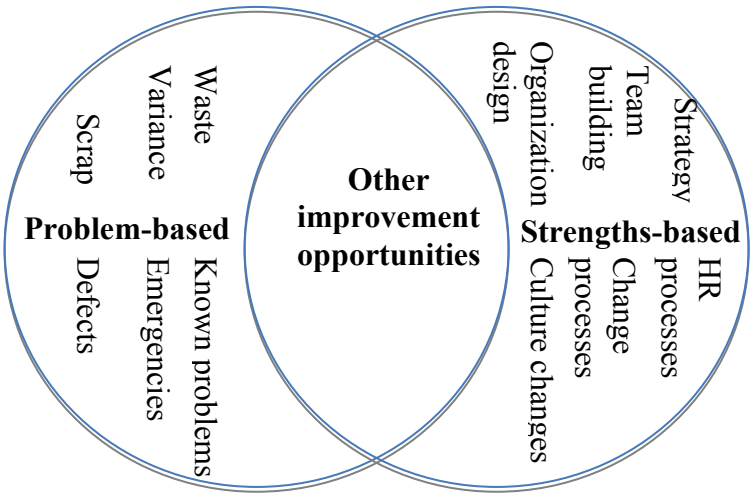

Figure 6.3 Perceived Applicability of Problem-based and Strengths-based Methods

The recommended mechanism for integration varied by the respondent's self-identified primary improvement method. Problem-based proponents looked to using strengths-based methods to structure the project scope in a positive light and get people engaged. Strengths-based proponents looked to using rigorous problem-based tools for their Design and Destiny phases.

The question of business segment followed this same formula of primary applicability in that certain businesses were perceived more suitable for one method or another. For example, large manufacturing concerns were looked at as being a natural fit for problem-based methods. Deming's early works were primarily aimed at removing waste and variance from manufacturing

operations, and it was not until he published his seminal work “Out of Crisis” that he began to effectively describe management’s impact on organizations and the applicability of TQM beyond the factory floor (Deming, 1986). Another example is large transactional organizations were looked at as being a natural fit for strengths-based methods, but within that almost stereotypical division of business segment applicability, respondents were in agreement that the nature of the issue, problem, or opportunity drove or should drive the methodology selected.

The concern that emerged was one of understanding that each method had its own primary applicability and disconnects arose when practitioners skilled in one method or the other tried to apply them to areas that were not the best fit. Using a blended mode could potentially aid in this, but optimally the path would be to select the best case fit and augment it with elements of the other as needed (Marash et al., 2004).

> RES 6: The lack of engagement with people is a negative for problem-based methods. Mechanical systems work best with negative feedback-loops and hence problem-based works best. People based systems work best with positive feedback-loops and hence strengths-based approaches work best.
>
> RES 17: Using problem-based methods, we are very factual and process based in our thinking. We say our problem is the process, not people, when looking for solutions. However, when implementing changes, we again look at the process as a mechanical device we can reshape and thus have perform or operate differently, when in reality, people are very much a part of the process. We will occasionally address issues such as communication or work instructions, but do not look into the issues, which will affect long-term implementation. There are many reasons that people will chose to participate or not, and we do not address those issues, except in a perfunctory way. These are reasons the problem-based methods seen to work best in manufacturing line types of problems with their elimination of the people elements, and strengths-based methods work well with OD types of improvement work with their focus on the people related issues and light concerns regarding process anomalies.
>
> RES 30: In general issues arise from the improper applications of methodologies, regardless of the methodology selected, some methods work better in one improvement activity versus another. The expectation of a "silver bullet" one-size fits all methodology or tool set is completely erroneous; arguments between practitioners of different methodologies also present problems in improvement initiatives. In specific projects/applications: Tendency to bias toward particular solutions and poor facilitation are problems.
>
> RES 31: It is focusing on problems. If you use this method on human systems you will create the "pointing finger syndrome". We have been working on the 0 defect approach at Philips Automotive lighting and I saw that speaking and dealing with problems every day under a high pressure could lead to depression and sadness with the belief that it is "hopeless".
>
> RES 36: For repetitive processes (releasing software, processing invoices, managing resources, processing financial transactions), we've had a lot of success with problem-based improvement methodologies. We

believe there are three types of processes: repetitive, ad hoc and social. Other than these, we've found that only 20% of the work actually done in most service based industries related to these types of processes. For this reason, approaches like LEAN or Six Sigma have limited applicability.

Relationship between Problem-based and Strengths-based Methods

The relationship between problem-based and strengths-based methods determined through research and literature review aligns both with direct and inverse relationships. Both direct and inverse relationships support the integration of problem-based and strengths-based methods. Direct relationships between problem-based and strengths-based methods demonstrate the direct alignment between the methods in support of business improvement, such as both methods having a facilitative and augmenting capacity for furthering the core interests and both fundamentally being organizational improvement methodologies. Inverse relationships between problem-based and strengths-based methods demonstrate the offsetting capacity for the strong points of one method to augment the weak points of the other.

Table 6.2 describes the relationship between problem-based and strengths-based improvement methods relative to their intended usages. Both methods are used to improve organizations in terms of developing the organization, reducing costs, and making the organization more effective. The intended uses are quite similar, but their various elements could make each of them more effective in specific applications.

Table 6.2

Direct Relationship Between Improvement Methods

Improvement Objective	**Problem-based**	**Strengths-based**
Organization development	Yes	Yes
Cost reduction and efficiency	Yes	Yes
Organization effectiveness	Yes	Yes
Development of a stronger organization	Yes	Yes
Supports a learning organization	Yes	Yes

Note. Table 6.2*, Direct Relationship Between Improvement Methods* was created and influenced from SME input and literature.

Table 6.3 describes the various elements of problem-based and strengths-based improvement methods that are not the same between the methods. These elements offer the potential for strong and weak points in the usage of each method. These elements have the potential for offsetting each other in an integrated applied state. An example of this could be, regardless of the methodology applied, using the more people focused and generative approach of framing the objective in a positive manner and co-creating a shared vision of the desired future state. Another example of their offsetting supportive integration could be when using AI to bring in various design and implementation tools from Six Sigma during the Design and Destiny phases. This maintains the generative development of a co-created shared vision for the future organization and provides a set of proven and rigorous problem-based tools for designing and delivering the desired future state.

Table 6.3

Inverse Relationship Between Improvement Methods

Improvement Element	Problem-based	Strengths-based
People / Psychologically engaging	No	Yes
Design tools	Yes	No
Analytical tools	Yes	No
Creates common vision of future	No	Yes
Strategic planning	No	Yes
Generative	No	Yes
New ideas and new ways of doing things	No	Yes
Contractive and narrow focus	Yes	No
Expansive and what could be focus	No	Yes

Note. Table 6.3, *Inverse Relationship Between Improvement Methods* extrapolated from SME input and literature.

Implications for Practice

The research established a model integrating the stronger elements of both problem-based and strengths-based methods to offset the weaker points of each (see Figure 6.1). This means that strong points of problem-based methods can be used to offset the weaker points of strengths-based methods, and vice versa. This integrated model does not try to force the use of problem-

based methods in applications best suited for strengths-based methods, and does not try to force the use of strengths-based methods in applications best suited for problem-solving methods. This model does not endeavor to move practitioners from using one approach to the other.

The integrated model does require practitioners who are grounded in and focused in their work from the vantage point of their respective methods to learn and become proficient in the concepts, elements, and methods of the other method. From that duality of approach now contained in their larger expanded organizational improvement toolbox, they would have the capacity to draw from a broader array of situationally appropriate improvement methods, approaches, and tools.

In describing the broader toolbox, the researcher is not implying that those self-identifying as problem-based methods practitioners would need to or want to convert to being a strengths-based methods practitioner, only that, after their integration of methods, they would have the capacity to better engage team and organizational participants in projects and initiatives. From the perspective of those self-identifying as strengths-based methods practitioners, they would, after methods integration, not be required to begin focusing on problems. In not doing so, this would not be in conflict with their perspective that a negative focus is in itself detrimental. Using an integrated approach is saying that they would have added capacity for designing and delivering a co-created future state vision.

This research will primarily benefit practitioners of problem-based and strengths-based methods. The benefits of the research to the practitioner will be in the improved methodologies offered in their practice. The term "practitioners" used in this context includes both consultants serving organizations on a contract basis and those working in organizations as employees. If not using a merged approach, even practitioners skilled in both problem-based and strengths-

based methods would be forced to choose between them with employers being focused almost exclusively on problem solving frequently driving the choice (Bushe, 2007; Marash et al., 2004).

SMEs, self-identified as strengths-based methods practitioners, described the uphill battle they often face due to the preoccupation on the part of leaders with their need to problem solve. Once the practitioner began using either problem-based or strengths-based methods, they usually stayed with that method attempting to maximize the contribution of that method's strengths and minimizing the impact of working around that method's weaknesses. Practitioners successfully using an integrated methodology will lead the opening of new research areas, but the researcher believes it will be more of a pull in that the applied practice will first evolve. As a result, additional avenues for or interests in further research will be afforded.

Implications for Future Research

The SMEs and the key informant in the course of completing their open-ended survey questions and interviews presented information not specifically related to the scope of the study. This information could potentially provide worthy avenues for subsequent study.

An area of potential inquiry includes the linkage and lineage of problem-based methods to basic scientific methods and their eventual separating into approaches viewed as being uniquely different. Respondents described their initial exposure to and usages of problem-based methods in terms of applied scientific methodology, but as clear and uniform as their beliefs were in respect to this origin, they were vague as to the steps and drivers regarding evolution from scientific methodology to problem solving methods such as TQM and Six Sigma.

Determining and investigating the historical context of problem solving and strengths-based methodologies and the educational levels and primary fields of problem solving and strengths-based methodology, practitioners could potentially yield insights into optimized means

for and approaches to their integrated usage. Preceding further research into the integration of problem-based and strengths-based methods, there could be valuable insights gained in better understanding the practitioner's confidence in and reliance upon their self-selected primary improvement methods. Respondents self-identifying themselves as using problem-based methods described in detail their usage of the methods in their work but said little about their use of them in their non-work life and environment. Respondents self-identifying themselves as strengths-based practitioners described their difficulties in "selling" the use of strengths-based methods due to their client's preferences and expectations for the use of problem-based approaches.

The strong expression of desire to use either problem-based or strengths-based methods on the part of particular practitioners raised questions regarding the psychological and/or gender-based makeup and mindsets of practitioners of either problem solving methodologies or strength-based methodologies pre-dispositioning practitioners into favoring the use of one approach or the other. The study of potential pre-dispositioning of practitioners could also yield insights into psychological impacts relative to merging problem solving for process improvements with strengths-based approaches to cultural improvement in a single application. Another related avenue of inquiry could involve determining and understanding any adoption-acceptance readiness difference implications in practitioner's preferring problem solving or strengths-based methodologies.

From a pragmatic applied state perspective, potential paths for additional research regarding the integration of problem-based and strengths-based methods include investigating group dynamics of problem solving teams versus strengths-based teams and investigating the edge-fringe to conventional norm evolution of both problem solving and strengths-based

methodologies. Respondents discussing potential areas for improvement of strengths-based methods expressed the need for developing mechanisms for improving the ROI calculations for strengths-based methods, placing them on a par with the more readily accepted mechanisms for ROI calculations used for problem solving methodologies.

Integration Facilitative Concepts

In order to determine an optimum path and means for the integration of diverse operational improvement methodologies, it is appropriate to further understand key integrative facilitative concepts such as change variables as incremental or discontinuous, change impact on institutional theory, and the connection of the paradigm interplay by Schultz and Hatch (1996) to the integrated model (see Figure 6.1).

Incremental and discontinuous change. In times of continuous and sustained economic turmoil, rapid technological advances, and changing supplier and customer orientations, organizations that change and adapt via an ability to reorient and recreate themselves will be the ones that succeed (Collins, 2001). The leadership of these adaptable organizations will understand the strategic and tactical advantages realized from being able to quickly and accurately see and understand their changing business environments and opportunistically embrace change, seizing opportunity.

Nadler, Shaw, and Walton, (1994) describe two different types of change encountered by businesses: incremental change and discontinuous change. Incremental change occurs during times of relative stability in which organizations routinely engage in change initiatives designed to optimize internal operations, e.g., Lean, Six Sigma, TQM, etc. Discontinuous change is the result of dramatic changes in the businesses' external environment, necessitating a change or be irreconcilably left behind, response from management.

The stress of discontinuous change. Discontinuous change can be stressful and an opportunistically significant type of change as it demands new thinking and approaches to developing innovative product and service offerings. Incremental change, since its basis is improvement of the existing, is more of an understandable and easily recognized imperative and initiative. As a result, middle management can easily lead incremental change in a business. On the other hand, discontinuous change is the result of a dramatically changing external environment. Discontinuous change can be best led by the CEO who clearly articulates a new or changing business need or paradigm, describes and directs the needed changes, and then assures the alignment of all levels of the organization to achieve the new goals and objectives (Nadler, Shaw & Walton, 1994).

However, the CEO cannot handle discontinuous change by himself and requires the active participation of his or her senior managers. It is essential that the CEO be recognized as the point person envisioning threat, opportunity, and the subsequent desired organizational final state, and the one driving the organization in that direction (Nadler et al., 1994).

The benefits of both incremental and discontinuous change. While incremental change is beneficial and needed for organizational improvement, it does not alter the business fundamentals. Discontinuous change alters the mission, vision, and values of the business. This assures that the business emerges from discontinuous change in a significantly altered state and is able to meet its new challenges (Romanelli & Tushman, 1994).

Regardless of changes being incremental or discontinuous, change is needed for organizational growth. Organizational change is, in its most elemental perspective, a natural condition of business life cycle. For example, organizations move from initially needing creative entrepreneurial management for product development and conceptual offerings to needing more

professional sustaining management to grow and manage the business. Another type of change could be a reenergizing shock to a company's system if it has become too complacent over time. In this type of change environment, the company still plays the same game it just learns to play it differently (Flamholtz & Randle, 1998).

The most dramatic change with the highest potential for risk and reward is the radical change to the way the company does its business and, potentially, to its product or service offering. This radical change could be of a discontinuous nature driven by changing external factors, driving the company's leadership determining, and seizing opportunity either not previously seen or not otherwise ready for. In order to determine which type of change is needed, management must first ask themselves what kind of business do they want to be? From there, answering the questions: what kind of customers are sought and what products and services need to be offered, help drive the questions and answers regarding capability and capacity to provide the products and services, which in turn determine the type and extent of change needed (Flamholtz & Randle, 1998).

Change impact on institutional theory. A more in-depth discussion of the points raised in incremental change (also termed first order change) versus discontinuous change (also termed second order change) considers the impact of institutional theory. Institutional theory studies the processes by which structures become established as beliefs explaining how organizations and other social entities interact and how these interactions evolve and change over time (Hunt, 2000).

Institutional theorists assert that over time organizations tend to become similar to each other as a result of a normative process rewarding sameness and that the organizational structures, values, and approaches of organizations in common business segments, e.g.,

petrochemicals, pharmaceuticals, aerospace, etc., tend to seek a commonality unique to the segment. It is further argued that organizations that adapt to institutional pressures are more likely to acquire needed resources and to survive in tenuous circumstances. Firms that have a high degree of internal alignment tend to be more successful, which drives other firms toward similar internal alignments. Institutional theory helps to explain both second order change and inertia as companies seek success via optimized commonality (Newman, 2000).

Institutional theory is directly related to the development and adaptation of merged improvement methods because the improved change methods could facilitate other necessary evolutions and changes for the organization. Adopting more effective improvement methods could aid individual organizations in their efforts to survive difficult times and to thrive in less difficult times. This adoption, when observed as contributory, could be replicated by other companies in the supply chain improving business overall (Hunt, 2000).

Paradigm interplay – an overview. Schultz and Hatch (1996) describe the fact that organizational researchers have for decades studied various paradigms in which to apply their theories. They present a theory that there is interplay between paradigms that requires its own study as depicted in *Figure 6.4* Paradigm Interplay Between Problem-based and Strengths-based Methods. Burrell and Morgan (1979) presented that there are a number paradigms defining the field of organizational study. Burrell and Morgan described these paradigms as incommensurable approaches to the study of organizations, in that they are developed and studied separately.

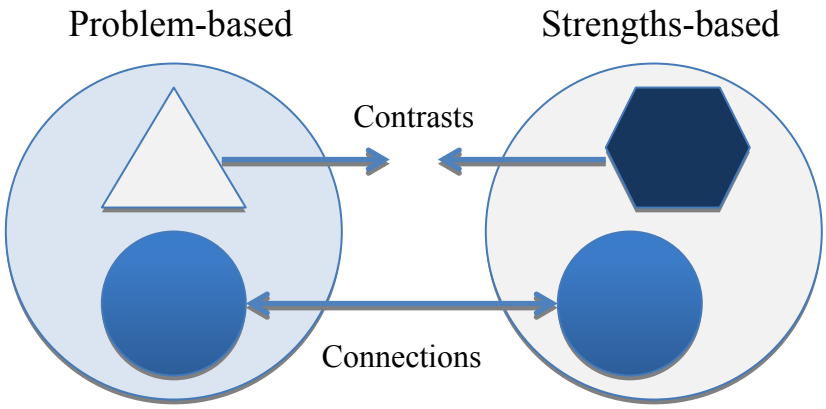

Figure 6.4 Paradigm Interplay Between Problem-based and Strengths-based Methods

Schultz and Hatch (1996) prefer to adopt the position that paradigm crossing accepts the multiple perspectives in the field of organizational study and takes advantage of the diversity of thought in the field. However, they do stress that their taking a paradigm-crossing position does not mean that they take an integrationist view as they still see separate paradigms that happen at points to cross and, in doing so, create new organizational dynamics and phenomena.

Integrating two paradigms such as problem-based and strengths-based improvement methodologies potentially present challenges beyond that of combining and selecting methods, tools, and approaches. As demonstrated by the respondents to the surveys and interviews, each paradigm had its own passionate supporters, some of whom believe the other to be flawed in logic, approach, or mindset.

> RES 12: I've got to tell you, I see problem solving, TQM, their applied state Lean Six Sigma as the only real path to making businesses or any other organization better. To do anything other than to identify and correct problems, reduce variance in processes and use this to make the business better is a complete waste of time. I have heard of blue-sky OD touchy-feely approaches, but that's mostly from HR people who couldn't pour stuff out of a boot. When you're faced with real problems you need real problem solvers stepping up not tree-huggers!

> RES 49: Don't even talk to me about the benefits of "problem-solving." When you problem-solve you are taking a reductionist approach and narrowing the field of potential solutions from the onset. You are alienating potential team members who don't want to be associated with the negativity of more and more problems, and most importantly you fail to develop the generative momentum that can develop new concepts and creative solutions. All problem solving will do is take you back to the state you were at before you detected the "problem."

Facing potential integration challenges beyond that of the mechanics of toolset usage and method selection logic, understanding paradigm interplay and optimizing integration paths could aid in the successful integration of problem-based and strengths-based methods.

A search for pragmatic pluralism. Jarrahi and Sawyer (2008) demonstrate that, in purposely applied paradigm interplay, pragmatic pluralism cannot be achieved unless the proponents of each paradigm understand the weaknesses of the paradigm they support and see the benefits inherent in their duality. In order for the duality to exist functionally, it is essential for neither paradigm to establish dominance over the other.

Research performed by Goles and Hirschheim (2000) takes further the positions taken by Schultz and Hatch (1996) that there are three possible paradigm interplay views to study: paradigm incommensurability, paradigm integration, and paradigm crossing. It was further described by Goles and Hirschheim (2000) that they adopted as their course of study the research done by Schultz and Hatch on types of paradigm crossing, i.e., sequential, parallel, bridging, and interplay. Goles and Hirschheim used paradigm interplay as a primary focus in their research because it simultaneously identifies and acknowledges the differences and similarities between the paradigms. They saw particular advantage in the use of transposed contributions from one paradigm to evaluate their impact on the other's theoretical framework. Paradigm interplay takes a both-and approach, versus the either-or approach taken by other paradigm interaction views.

> This both-and approach was done in two steps. First, the researcher focuses on three sets of contrasts and connections between paradigms: generality/contextuality; clarity/ambiguity; and stability/instability. After identifying and probing these contrasts and connections in relation to the research question(s), the next step is to move between paradigms by exploring the implications of the contrasts and connections in terms of one another on opposing dimensions. (p. 260)

Goles and Hirschheim (2000) conclude their study with a call for the end of paradigm wars and a move toward a pragmatic approach to the realization that multiple paradigms coexist and interact. Goles and Hirschheim also expressed concern that researchers need to be free to look at the reality of paradigm interplay and the resultant creating of new or altered expectations without being forced to move into one paradigm or another in their study of organizational science.

Limitations of Study

This qualitative research data were primarily drawn from the experience of SMEs responding to survey questions and to post-survey interviews. Quantitative data used were limited to aggregating the survey answers provided to descriptive survey questions regarding their age, gender, education, and questions requiring a binary yes/no or numerical responses describing their past uses of either problem-based or strengths-based methods. In qualitative research there is a potential limitation that the researcher does not work with evaluating findings against predetermined variables using data from precise measurements as quantitative research does. Qualitative researchers draw information from either SMEs or random subjects and attempt through codification and analysis of coded information to draw meanings and conclusions (Willig, 2001).

In qualitative research, the researcher is part of the study, and it is necessary for the researcher to demonstrate that reflexivity is not driving the respondent to answer in a particular manner. Qualitative researchers must take particular care to assure that they have not introduced their bias into the study by framing questions in a manner that could lead responses in a direction, not demonstrating feeling or gestures that might be interpreted as favoring one response versus another, and not introducing anything into the data gathering, analysis, or

interpretation to bias results. The qualitative researcher is so much a part of the research framework, therefore, the researcher needs when faced with an interview transcription must first attach meaning to the document and then, from that understanding, begin to code, recode, and analyze the information in a sense-making reflective activity.

Both the language used and general reflexivity issues are important constraints for qualitative research. Relative to reflexivity, Willig (2001) described that the qualitative researcher must stay cognizant of personal reflexivity and epistemological reflexivity. Personal reflexivity is concerned with the makeup of the researcher, e.g., how the researcher has come to be at that point in time via education, values, experiences, etc., and how that could potentially impact the study. Epistemological reflexivity questions how the framing and construction of the study impacts or drives the results of the study, and if the study were constructed or administered differently could that have impacted the results of the study. The language used in a qualitative research study has reflexivity impact because it is very difficult to assure language used does not bias the interpretation of the questions and therefore the response to the question (Willig, 2001).

Codification itself is potentially a categorical identifying selection imbued with its own bias. Constructing a survey or interview guide, asking and responding to questions in a certain way, interpreting and codifying responses, categorizing coded information, analyzing the categorized information, and applying sense-making and interpretation to the analysis, are all opportunities to interject bias and emotion from the researcher into the research and its findings and conclusions (Willig, 2001).

Qualitative studies are not considered generalizable to other settings and are considered instead to be context specific. Questions of applicability, transferability, and replicability are identified as the types of questions researchers apply in determining the applicability of

qualitative research findings to other studies (Newman & Benz, 1998).

Summary

Half of the participants in the survey described problem-based approaches as needing the human factor effectively included in their approach. The motivational, organizational development, human factor and team building factors are parts of the basis of strengths-based methodologies. The other half of the participants in the survey described the strengths-based approaches as needing more data, more effective metrics, calculable and meaningful ROI metrics, a better business sell, and effective tools for the AI Design phase. These needs are foundational components of problem-based methodologies.

The research question and sub-questions were answered through the research. It was determined that the weaknesses in each methodology are at least, in part, addressed by the strengths inherent in the other, and there was nothing inherently prohibitive in their integration. Practitioners in each methodology saw potential for enhancement in their methodology via prudent and responsible understanding and integration with the other approach.

In addition to the information provided through the survey of 88 SMEs divided equally between the disciplines of problem-based and strengths-based and methodologies, the researcher conducted post-survey-analysis interviews with select SMEs. The researcher also contacted the key informant used in independent review of the research direction, data gathering and analytics, and interpretations and conclusions drawn. The key informant was provided survey data and analysis, results of post-survey-analysis SME interviews, and was then provided the interpretations and conclusions drawn by the researcher. The post-survey-analysis interviews confirmed the researcher's conclusion that there is opportunity to augment strengths-based approaches through the incorporation of elements of problem-based approaches, as there is

opportunity to augment problem-based approaches through the incorporation of elements of strengths-based approaches.

It is the further conclusion of the researcher that academic research informed practitioners must forge the paths of integration with skills in each domain working in the fires of real world and pressing organizational improvement initiatives. In order for there to be uniformity and research supported reliability of findings and practice development, there needs to be instituted a consortium of key practitioners and academics aimed at the development of refined and continuously improved integration of problem-based and strengths-based methodologies. Practitioners and academics alike saw potential opportunity derived through the integration.

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Appendix 1 - Survey Instrument

Survey Questions

Demographic Information

1. What is your primary location?
North America
Central/South America
Europe
Asia
Pacific Rim

2. What is your age?
<30
30-40
41-50
>50

3. What is your sex?
Male
Female

4. How many years do you have in your profession?
1-5
6-10
11-15
16-20
>20

5. What type of business are you involved in?
Sole Proprietor
Partnership
Non-profit / NGO
<100 people private or public
>100 people private or public
> 1000 people private or public

6. What business segment are you involved in?
Government
Healthcare
Education
Service
Financial
Industrial
Other

7. What is your educational level?
High School
Some College
Bachelors
Masters
Doctorate
Post-Doctorate

Expertise

8. Between Problem-Based (TQM, Lean, Six Sigma) or Strengths-Based (Appreciative Inquiry) Improvement Methodologies, which is your primary expertise?

(If Problem-Based Methodologies was selected, the survey takes the respondent to this section: Problem-Based Improvement Methodologies)

9. When and how were you first introduced to problem-based improvement methodologies?

10. How long have you been using problem-based improvement methodologies?
< 5 years
5-10 years
> 10 years

11. Please describe how frequently you use problem-based improvement methodologies.

12. In total, how many times in your work have you used problem-based improvement methodologies on projects or other significant applications?
1-5
6-10
11-15
16-20
21-30
> 30

13. Is using problem-based improvement methodologies a primary aspect of your work?

14. How complete an answer has problem-based improvement methodologies routinely provided?

15. If you have believed problem-based improvement methodologies has provided an incomplete answer, what was missing?

16. In what types of organizations / businesses have you used problem-based improvement methodologies?

17. What do you see as the primary contributions of using problem-based improvement methodologies?

18. What do you see as the primary weaknesses of using problem-based improvement methodologies?

19. What have been your successes when using problem-based improvement methodologies?

20. In your past successful uses of problem-based improvement methodologies, what could you have done to make them more effective?

21. What have been your less than successful outcomes when using problem-based improvement methodologies?

22. In any less than successful outcomes using problem-based improvement methodologies, what could you have done improve your results?

23. Do higher level managers openly support and value the use of problem-based improvement methodologies?
Yes
No
Sometimes

24. How does management typically provide input and support to problem-based improvement methodologies?

25. Does the emphasis on one problem-based improvement methodology versus another change with new managers?

26. How could problem-based improvement methodologies be improved?

27. If strengths-based improvement methodologies are defined as identifying and building upon existing and / or past organizational strengths, could the merging of strengths-based and problem-based improvement methodologies be accomplished?

28. Would the merging of problem-based and strengths-based improvement methodologies provide benefits beyond those provided solely by problem-based improvement methodologies? If yes, why, if no, why?

29. How do you think problem-based and strengths-based improvement methodologies could be

merged?

30. Problem-based improvement methodologies identify and work on problems, does this ignore organizational strengths? If so, does that adversely impact business improvement activities?

31. Strengths-based improvement methodologies identify and build upon strengths, does this ignore organizational problems? If so, does that adversely impact business improvement activities?

32. Would you like to be contacted to further discuss your responses or the topic?
Yes
No
If needed

If Strengths-Based Methodologies are selected, the survey takes the respondent to this section of the survey:

Strengths-Based Improvement Methodologies

33. When and how were you first introduced to strengths-based improvement methodologies?

34. How long have you been using strengths-based improvement methodologies?
< 5 years
5-10 years
> 10 years

35. Please describe how frequently you use strengths-based improvement methodologies.

36. In total, how many times in your work have you used strengths-based improvement methodologies on projects or other significant applications?
1-5
6-10
11-15
16-20
21-25
26-30
>30

37. Is using strengths-based improvement methodologies a primary aspect of your work?

38. How complete an answer has strengths-based improvement methodologies routinely provided?

39. If you have believed strengths-based improvement methodologies has provided an

incomplete answer, what was missing?

40. In what types of organizations / businesses have you used strengths-based improvement methodologies?

41. What do you see as the primary contributions of using strengths-based improvement methodologies?

42. What do you see as the primary weaknesses of using strengths-based improvement methodologies?

43. What have been your successes when using strengths-based improvement methodologies?

44. In your past successful uses of strengths-based improvement methodologies, what could you have done to make them more effective?

45. What have been your less than successful outcomes when using strengths-based improvement methodologies?

46. In any less than successful outcomes using strengths-based improvement methodologies, what could you have done to improve your results?

47. Do higher level managers openly support and value the use of strengths-based improvement methodologies?
Yes
No
Sometimes

48. How does management typically provide input and support to strengths-based improvement methodologies?

49. Does the emphasis on one strengths-based improvement methodology versus another change with new managers?

50. How could strengths-based improvement methodologies be improved?

51. If problem-based improvement approaches are defined as identifying and correcting existing organizational problems, could the merging of strengths-based and problem-based improvement methodologies be accomplished?

52. Would the merging of problem-based and strengths-based improvement methodologies provide benefits beyond those provided solely by strengths-based improvement methodologies?

If yes, why, if no, why?

53. How do you think problem-based and strengths-based improvement methodologies could be merged?

54. Problem-based improvement methodologies identify and work on problems, does this ignore organizational strengths? If so, does that adversely impact business improvement activities?

55. Strengths-based improvement methodologies identify and build upon strengths, does this ignore organizational problems? If so, does that adversely impact business improvement activities?

56. Would you like to be contacted to further discuss your responses or the topic?
Yes
No
If needed